



# **Board of Education**

**THE CITY OF NEW YORK**

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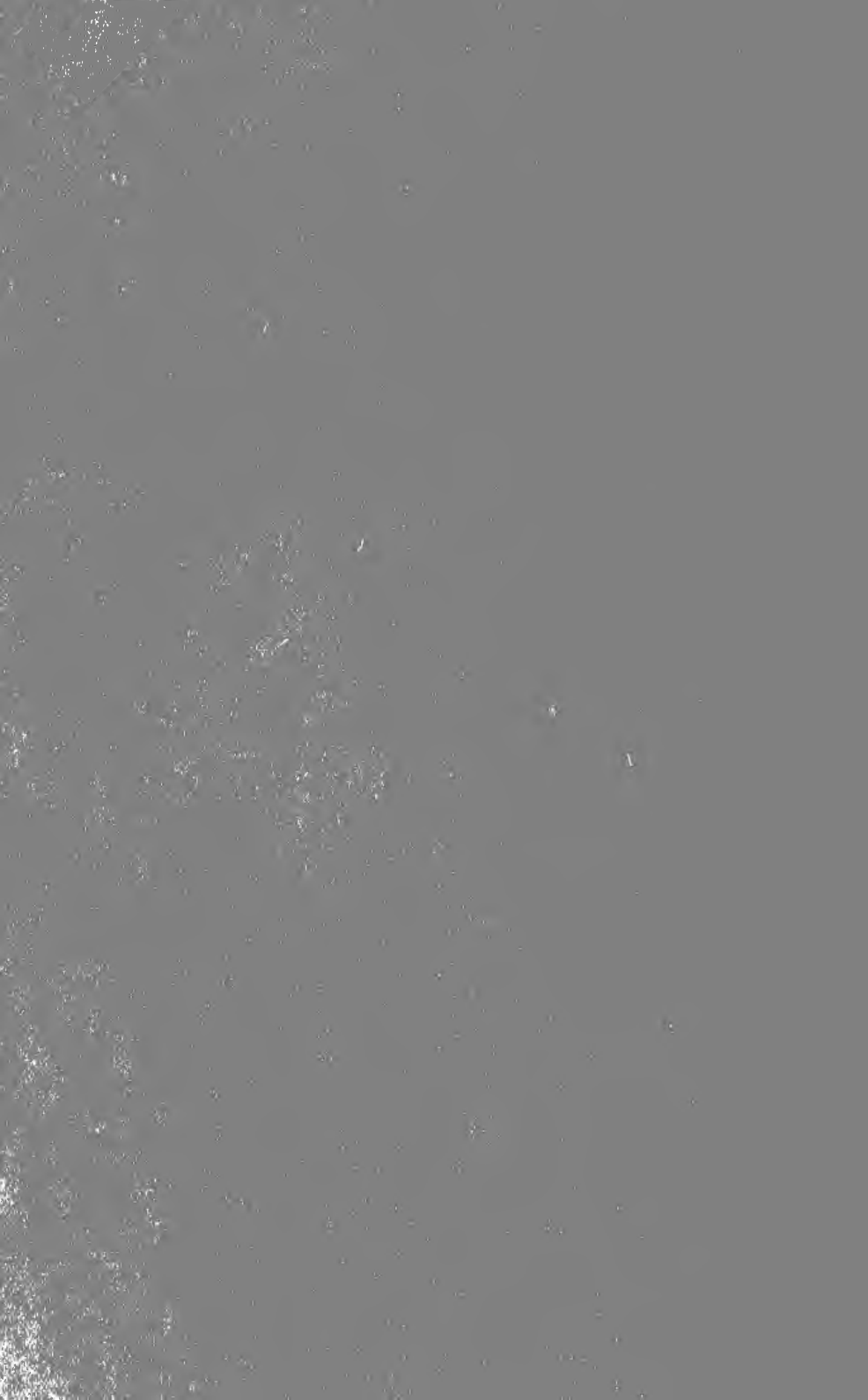
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## **Industrial Conference**

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**Washington Irving High School**  
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# Industrial Conference

Presiding Officer

*His Honor, The Mayor of The City of New York*

JOHN PURROY MITCHEL

*President, Board of Education*

THOMAS W. CHURCHILL

*Committee on Vocational Schools and Industrial Training*

Mrs. ELLA W. KRAMER, *Chairman*

JOSEPH BARONDESS

ERNEST F. EILERT

ABRAHAM FLEXNER

ISADORE M. LEVY

JOHN MARTIN

JOHN WHALEN

WASHINGTON IRVING HIGH SCHOOL

MONDAY, JUNE 29, 1914, 8 P. M.

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### RESOLUTION ADOPTED BY BOARD OF EDUCATION ON JUNE 24, 1914

*Resolved*, That the PRESIDENT be, and he is hereby, authorized to invite, on behalf of the Board of Education, speakers and others interested in industrial education to attend a conference on that subject to be held at the Washington Irving High School on Monday, June 29, 1914, at 8 o'clock P. M., and to make any and all such arrangements in regard to said conference as, in his judgment, may be necessary.

## Program

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1. MARCH—"Midsummer Night's Dream" . . . . . *Mendelssohn*
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2. INTRODUCTION . . . . . HON. THOMAS W. CHURCHILL  
President of the Board of Education
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3. ADDRESS . . . . . HON. JOHN PURBOY MITCHEL  
The Mayor of The City of New York
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4. ADDRESS . . . . . HON. WILLIAM A. PRENDERGAST  
Comptroller of The City of New York
- 

5. SELECTION—"Serenade" . . . . . *Schubert*
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6. ADDRESS . . . . . CHARLES A. PROSSER  
National Commission on Vocational Education

## Program

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### 7. SELECTION

- (a) "Valse Lente" . . . . .  
(b) "Pizzicatti" . . . . . *Delibés*
- 

8. ADDRESS . . . . . GUSTAVE STRAUBENMÜLLER  
Associate Superintendent of Schools, The City of New York
- 

9. SELECTION—"Andante Cantabile" . . . *Tschaikowsky*
- 

10. ADDRESS . . . . . H. E. MILES  
President, Wisconsin State Board of Industrial Education
- 

11. ADDRESS . . . . . WILLIAM WIRT  
Superintendent of Schools, Gary, Indiana
- 

12. MARCHE MILITAIRE . . . . . *Schubert*
- 

Orchestra of the De Witt Clinton High School  
JOSEPH P. DONNELLY, *Director*



# Industrial Conference

## Washington Irving High School

JUNE 29, 1914

HON. THOMAS W. CHURCHILL, PRESIDENT OF THE BOARD OF EDUCATION, ADDRESSED THE MEETING AS FOLLOWS:

LADIES AND GENTLEMEN: In opening this conference my function is a simple one—to announce the purpose of the meeting, to extend on behalf of the Board of Education a welcome to the distinguished speakers and the no less distinguished audience, and to introduce to you the eminent official who has consented to preside.

Vocational instruction is the most ancient form of education. The first naked savage who guided the trembling hand of his offspring to bend the bow was conducting a system of industrial instruction, admirably adapted to the child's own future calling. Every time and every nation has thus evoked its own system of instructing its youth to find their place in the life of the time; a place where they might render service and earn that reward that would keep mind and body fit for further service.

Civilization and letters have preserved for us the splendid heritage of the past, but they have preserved with it something of tradition that belongs to the past. What may have been useful in one age may yet survive long after its usefulness has ended.

If, then, we seek a fuller recognition of the needs of the practical life, it is only that the schools may continue their world-age function of preparing for that life. Education, it is true, must include the knowledge of the past; not less truly must it recognize the needs of the present.

In a democracy like ours, education cannot be dominated by an ideal that considers only the limited number that need not work with the labor of their hands or the sweat of their brow. In making provision for the extension of vocational education, therefore, we are but bringing back our educational forces to the exercise of their normal function.

As to how this may best be done the Board of Education seeks to learn from all men and from every place. It wants light, more light, and it is for this reason that it has asked for information and for counsel from all who may give it.

Recently a number of gentlemen, interested in this question, visited the cities of the west where many interesting and illumi-

nating experiments are being tried out. The Mayor of the City himself headed this group of visitors.

It is a significant tribute to the importance of this great problem that the Mayor could find time personally to visit these schools; it is no less significant of his sympathy with the movement and his wide vision of its possibilities.

Therefore, ladies and gentlemen, it is with peculiar fitness that I have at this time the pleasure to introduce as the presiding officer of this conference, His Honor, the Mayor of The City of New York.

HON. JOHN PURROY MITCHEL, MAYOR OF THE CITY OF NEW YORK, ADDRESSED THE MEETING AS FOLLOWS:

LADIES AND GENTLEMEN: We are met here to-night to consider the most effective way of rendering the people of this City a fundamental social service. We are here, as President CHURCHILL has said, to devise plans for extending in this City industrial education—vocational education. I take it that we will all admit that the school exists to fit the boys and girls of the community to take their places effectively and successfully in the community life.

If that be true, it follows that the school fails of its purpose and object if it fails to equip the boys and girls of the community to take that place and to earn for themselves a sufficient livelihood—if it fails to prepare them to take that place and then to go forward in the community life to whatever station their special aptitudes may permit them to rise.

We have been coming to the view in New York that the schools as we have them now—the school system as it exists today—lacks something of the effectiveness that it ought to have to equip properly for the community life. To quote once more the figures that most of us probably know, but that it is well for us all to remember, the school mortality in this City: We know, for instance, that in 1912-13 there were in the public schools of the city 661,000 children; that in the second year there were 86,000 children—that is in the second year grade; that at graduation in the elementary schools there were left but 48,000; that of those but 23,000 entered the high schools, and in the last or fourth year of the high schools there remain but 4,079 children. The rest dropped out somewhere on their way through the school system.

Now, were those boys and girls properly prepared by the schools of this City to take their places in the community life of this City? Were they equipped to earn their own livelihood and to advance themselves through their own efforts to whatever places their capacities would naturally permit them to rise? I think the answer must undoubtedly be no, for many of them dropped out before reaching the last year in the elementary schools and they could not have been equipped to take their places effectively in the community.

We want to have those boys and girls whose economic condition at home makes it necessary for them to leave the schools before they reach the last year go out equipped, as soon as they must go out, to take their places in industry, or in business, as the case may be, into which they naturally gravitate. In other words, we wish to extend, I cannot say establish for it has been established and begun, prevocational training in the schools of this City in order that those boys and girls when they do go out may have

some of the things necessary to take their places effectively in industry and business.

There are several things which we can do, it seems to me, and a good many more probably which we can do, or, which we will learn that we can do when we study this problem carefully and fully as we have begun to do.

We could increase the number of day trade schools, that is one thing. We can increase the prevocational classes in the elementary schools. We can establish here, I trust, what has been established so successfully already in Cincinnati—a close cooperation between industry on the one hand and the schools on the other under a plan that permits the pupils there, it is true, in the college courses in the engineering school (there is no reason why it cannot be done in the high schools and probably in the upper classes of the elementary schools) to spend part of their time in the shops and factories of industry and part of their time in the classroom receiving theoretical and cultural education.

There is no reason, it seems to me, why we cannot establish that plan in New York City and get the benefit of the equipment of industry—the training of its artisans—combined with the capacity for cultural instruction of the teachers in our schools. Then perhaps too, I for one believe that we can establish something of that splendid system of distribution of the pupils in the classes and have the combination which Mr. WIRT has already so successfully established in Gary.

Those things we can do, and we are here tonight to consider other means and methods—those and others—that we can adopt in order to extend this system of industrial education in the City. And in making our plans, in formulating our program, we must recollect that, if we are to be successful, it must be upon a basis of cooperation between industry and the schools, cooperation that will be intimate and sympathetic, because without cooperation that means the help of those who are engaged in industry, we cannot establish, in my judgment, an effective plan.

We have got to understand the conditions that prevail in industry and business in order that we may devise a plan that will meet those conditions. We have got to understand the conditions that prevail in industry, and we have got to avail ourselves of the skilled artisans that industry provides in order to secure for whatever system we may establish skilled instructors, because it is not enough to get those who are able to pass examinations in cultural subjects.

We have got to have, if we want efficient teachers in these subjects, the men who have been trained in the shop and in the factory. So I say we must have that sympathetic and active cooperation between industry and the schools, and we are trying now to devise the ways and means of establishing that cooperation.

Now it is my function merely to preside and to introduce to you those who are competent to discuss these questions in detail.

I shall not trespass any longer on your time. I have the honor of introducing to you first Mr. CHARLES A. PROSSER, formerly Assistant Commissioner of Education of Massachusetts. Mr. PROSSER was selected by President Wilson as a member of the United States Industrial National Commission on Vocational Education and his Committee has already submitted to Congress a report outlining a plan for the extension of that education. Mr. PROSSER is also Secretary of the National Association for the Promotion of Industrial Education and has had a direct part in preparing legislation in many states on the subject of industrial education. I have the honor of presenting Mr. PROSSER.



MR. CHAS. A. PROSSER, SECRETARY OF THE NATIONAL SOCIETY FOR THE PROMOTION OF INDUSTRIAL EDUCATION AND A MEMBER OF THE NATIONAL COMMISSION ON VOCATIONAL EDUCATION, ADDRESSED THE MEETING AS FOLLOWS:

"If to do were as easy as to know what it were good to do, chapels had been churches and poor men's cottages princes' palaces." If to give New York City a good system of vocational education, meeting the rights and needs of all her workers, were as easy as to agree that it should be done, a splendid structure of practical education would grow up in the New York public school system like the palace of Aladdin of old.

Unfortunately, the task is not to be accomplished either by wishes or by magic. Institutions do not come to fruition by such easy methods in real life. When the "tumult and the shouting dies" in this nation-wide campaign for practical training, when the promoters and the agitators depart, we will find ourselves still facing the very serious task of developing and perfecting a system of vocational education, and facing in that task the most difficult problem in all the history of education.

The movement for vocational training is on us today faster than we have teachers to do the work, faster than we have a knowledge of the industries, faster than we have gained any experience in dealing with the problem on this side of the water. The City of New York, of all cities in the world, has the most unique task in serving the interests of all her workers, unique in size, unique in complex conditions, unique in the difficulties to be met.

The Board of Education of this City, many and difficult as have been the problems confronting it in the past, today faces what I think is the hardest of them all. It is prophetic of the future success of the work in this City that conferences of this kind are being called and are yet to be called for the purpose of discussing the question and of securing aid from every source in dealing with it.

As a prelude to the swelling theme of the evening, I have been asked to state my convictions as to what ought to be done. It would be unfair not to pause at the very outset to commend the interest which the Board of Education has shown. The Board is being impelled from within and from without; impelled from within because of its growing feeling that a democratic system of education for New York City requires the training of all kinds of men in all kinds of ways for all kinds of things; and impelled from without by a growing public sentiment in the city keeping step with that of the rest of the country. Vocational training has laid hold of the imagination of the people as no other program in education has ever done.

It would be unfair, too, not to commend the splendid beginnings which have already been made. There are here and there throughout the City of New York interesting and praiseworthy experiments in free vocational education bearing rich promise for the future. You have a system of technical high schools in New York that will bear comparison with the best in the country. The Manhattan Trade School for Girls is as well known as any other school in America. Commendable beginnings have been made in the general continuation classes in department stores. The Board of Education has already begun to cooperate with private ventures, like that of the printers at the Hudson Guild. Some of the very best evening school courses are those that analyze industry, that find out the needs of the workers, that group men according to their needs and give them the next thing they need as the next step forward in their callings.

Last year, your evening school in applied design probably broke all records for continued persistent attendance on the part of its students, a sure sign that the class was meeting their needs. The truth is the City is so large and so many big things are being done here constantly that many worthy things carried on by teachers within the school system are almost unnoticed, unheralded and unsung, which, if they were being carried on in a smaller place, would be blazoned forth as great contributions to education.

When the friends of vocational education urge the development of vocational education for New York, they are asking for the extension of work already begun, for the proper organization, the proper support of the movement on a larger scale in order that the interests of a greater number may be served.

There is more vocational education being given in New York City than any other municipality in the country and there ought to be, because the City is much larger than any other centre of population under our flag. Comparatively speaking, however, New York has scarcely kept step with the tremendous onward sweep of this movement. The very practical and vital issues which are at the present time facing the school authorities are such as these: Knowing that the City must greatly extend this movement, will it provide the funds, is it properly organized to carry on the work, has it yet begun the experiments that need to be made, has it as yet established the different types of schools needed, has it as yet set up the proper cooperation with commerce and industry, does it have its face set in the right direction in dealing with the question?

In what I have to say by way of suggestion tonight, I speak purely as a private citizen of this community. There are four things which I think need to be emphasized. What shall New York City do in a progressive scheme of vocational education?

First: New York City must set up within her public school system a distinctive management and separate organization under the Board of Superintendents for carrying on this work.

Second: New York City must search out and train all the dif-

ferent kinds and groups of people needing trade preparation for their life work. A system of vocational education for this City must be broader and more comprehensive than the ideas of any one thinker or the pet plan or scheme of a particular group of persons. Those in charge of the work must keep in mind the interests and needs of all groups and provide in time the many kinds of schools necessary to serve them.

Third: New York City must increasingly demand that a large share of the trouble, expense and responsibility of carrying on practical education shall be met by the industries and the vocations themselves. In ancient days, master and journeyman assumed the joint responsibility for the young workers in the craft. The schools of New York cannot solve this problem alone. They must have the help of commerce and industry, and we must bring home to commerce and industry a renewed sense of responsibility for the integrity and efficiency of their workers whether employed in the countinghouse, the shop or the factory.

Fourth: New York City must carry vocational education to the worker in attractive and convenient ways. He will never come to it otherwise.

### *A Distinctive Management*

New York City must have a distinctive management; a separate and distinct organization within the public schools to handle vocational education. It seems obvious to those who have been in the work that vocational education cannot be carried on by the schoolmaster alone, nor by the manufacturer alone, nor by the trade unionist alone. It requires the union of all three.

Vocational education has for its controlling purpose the preparation of young persons for useful employment. This means fitting them to meet the requirements of specific occupations. If the schools are to prepare people for the machine shop or the print shop or the clothing trade or the textile mill, or the electric shop or the counting room, there are three things we must know. We must know what to teach in order to fit the worker to meet the demands of his vocation, we must know how to teach it, we must know when to teach it.

The cooperation of the educator and the practical man is necessary in dealing successfully with these three problems. The trade worker must furnish the practical information about the processes and requirements of his calling; but the trained educator must have a large part in the organization of this material into a progressive course of instruction by the school, even when the school is operated by private agencies.

A scheme of industrial training operated by the trade alone without any help from the educational experts in the making of courses of study and in the problems of teaching, would be just as certain to be unsuccessful in giving the worker proper class-

room instruction as a system of vocational education operated by the schoolmaster alone would be certain to fail in fitting the worker for the practical demands and opportunities of his calling.

A great many people with their eyes fastened on the shortcomings of the American schools are crying out that the schools are inefficient. I believe this is true of some schools; but I do not believe that the schools of today are on the whole a bit more inefficient than modern industry. There are not wanting those who, looking at the failures of the schools to provide a practical education and their lack of practical contact with life and its vocations, are advocating what has been called for want of a better name, dual control for vocational education.

Dual control in vocational education means the establishment of a new and independent system of vocational schools having no connection with the present system. This new system is to have its own school board, its own director or superintendent, its own plant and equipment, its own teaching force, its own course of study and in short, a separate management throughout. This separate board is to operate its schools on a separate budget provided by the City; all of this for the purpose of getting into the vocational schools the voice and the help of those experienced in industry.

Whatever may be our individual opinions with regard to the proposal that the states and local communities establish separate and independent systems of schools for vocational education, every indication seems to show that the American people are not ready for this step and that they want first to give the regular school system a chance to deal with the task. The American people do not want, if it can be avoided, two different systems of education in the same community competing for the same children; competing for the same funds out of the same public treasury. I do not believe that for the present there will be one Simon Pure Dual System of education in the United States. There is none today. The nearest approach we have to it is the system which has been adopted in Wisconsin. There an independent board of trustees is selected by the Board of Education and that independent board of trustees has in its membership the superintendent of the public schools, who is at the same time the executive officer of the vocational schools.

Whatever may be the situation elsewhere, a dual system of vocational education for New York City is unthinkable. Everybody recognizes that the magnitude and complexity of the task make it impossible under the conditions which obtain in New York City to handle the matter in any other way than under the regular Board of Education. The schools of New York City are going to be called upon to deal with this subject of vocational education. If they fail, if they make that education academic instead of practical, if they fail to serve the interests of those who ought to be prepared for their work in life, if they do not secure and use this

information that the practical man has to contribute, if a distinctive management is not established which will enable these schools to grow up and realize their aim unhampered by traditions, then we shall have a demand for an independent system for vocational education.

Theoretically and to a very great extent, practically, there are a number of very strong features in a system of independent control for vocational education. There are at the same time pronounced disadvantages in it from the standpoint of the advocates of unit control which need not be discussed here. Every one of those desirable features is worth securing by any regular Board of Education. There are ways by which they can be secured. When we have a system of distinctive management for vocational education, there are certain large values that undoubtedly result.

If the regular board of education of New York City is to administer vocational education, how can it secure these advantages? By distinctive management within the public school system of all the work for vocational education. By organizing vocational education in such a way that while it is under the regularly constituted authority at the top of the Board of Education, the Superintendent of Schools and the Board of Superintendents, it is carried on separate from the regular schools, with a separate organization, courses, pupils and teachers under the direction of experts who are held directly responsible for the success of the work.

There ought to be and I hope there are persons on the Board of Education who distinctively represent the vocational interests and experience both of employers and employees. If the Board is without a reasonable representation from this element in the community, then when legitimate vacancies occur, the Mayor should not neglect his golden opportunity to add to the Board people who, in addition to their general and commendable civic interest in this question, bring to it the interest and the knowledge born of practical experience.

There ought to be and I think there is now a committee on vocational education under the Board of Education. That committee ought to be and so far as I know may now be something more than a rubber stamp for either the Board of Education or the Board of Superintendents. This committee ought to have certain definite duties and responsibilities carefully prescribed by the Board of Education. This Committee working under the Board of Education ought to be composed of the people in the Board who have the most interest in and the greatest amount of experience in dealing with the problems and questions involved.

It may be and probably is true that the present committee on vocational education of the New York Board of Education is made up of competent persons of the Board, having special interest and experience in dealing with the problem, and that this Committee

has already been given a large field of responsibility and initiative in developing the work in this City.

In the Board of Superintendents, responsible as they are for every phase of the educational activities of the New York public school system under the City Superintendent, there should be at least one superintendent having special interest in and responsibility for the promotion of effective vocational education in all the Boroughs.

It goes without saying that he should be a person of faith and enthusiasm for the movement for practical education, thoroughly acquainted with its problems and able to present the recommendations of a staff of experts under him to the Board of Superintendents in a way that the importance of the subject demands and with the ability and force necessary to carry conviction as to what should be the general policies set up by the Board in this pioneer field of education.

Under the present scheme of organization of the Board of Superintendents of New York City, it would be absolutely impossible for any one superintendent to give his entire time to vocational education alone. The Board as a whole, and the individual members of the Board have their time taken up with the consideration of many different affairs that have to do with every phase of the problem of administering all kinds of public education in a city of more than five million people. The superintendent for vocational education, while participating in the usual duties of the members of the Board of Superintendents, should have for his special work on that Board the things that have to do with the promotion of a system of vocational training for this great centre of population. In a sense, he should represent on the Board a separate department organized under him for which the Board would hold him directly responsible.

This much of a scheme for vocational education has already been put into effect in New York. Earnest and efficient superintendents who are now members of the Board have from time to time been given as their special responsibility the problem of vocational education. Already heavily burdened with many other duties they have done all and more than could be expected from them without the effective organization of a department under them to carry on the work.

The step which is now needed is the organization of such a department for vocational education. This department should include all the activities that have to do with all the education in New York whose controlling purpose is to prepare people for successful work in industry, commerce or in the home, three of the four forms of vocational education which this country is seeking to develop, the fourth being agriculture.

This department should have at its head as a director some person of recognized national reputation in the field of vocational training who brings to the task previous experience in organizing

and administering schemes of practical education. The department of which he is the head should be made directly responsible through him to the Superintendent for vocational education, who should in turn be responsible to his colleagues on the Board of Superintendents and to the City Superintendent for the successful discharge of the task.

Under the director for vocational education for the City, there should be employed, from time to time as the situation develops, experts for particular phases of the work to be known as agents or supervisors or assistant directors. Under the direction of the director of the department, these experts should begin the development of schemes of vocational education for industry, commerce and the household. There is needed at the present time at the very outset at least one supervisor or assistant director for commercial education and one for household arts education. As the work progresses, as new schools are established and classes organized, additional assistants should be employed to aid these in supervising the teachers in the work undertaken.

Under the director for vocational education, there is need from the outset of a number of supervisors or agents to deal with different phases of the problem. One supervisor might well give, even under present conditions, his whole time to the affairs of the evening industrial classes; one to the many issues that are involved in the establishment and operation of all-day schools and one to face the exceedingly difficult task of introducing and supervising part-time and continuation classes for young workers.

It is a mistake to delay the organization of such a department and the use of such expert service until after vocational schools have been established on an extensive scale. This kind of help is needed even more before the schools are organized than after they become going concerns. Where such schools should be located, how they should be built and equipped, for what occupations they should fit, what courses of study they should offer, what methods of teaching they should follow, how they may cooperate with the vocations for which they seek to train; all these are questions to be worked out now and not after the schools have in a blind way done things that must be undone.

The City is already awake to the need of expenditures of more money for vocational education. Education is a business as certainly as manufacturing is a business. Every manufacturing establishment expects to spend a certain portion of its budget of expenditures for the proper management and supervision of its work. It is just as necessary that New York City should plan now for the expenditure of a sufficient amount of money for such adequate supervision of the work as will insure success from the outset.

The State of Massachusetts, with less than half the population of The City of New York and expending out of state funds last year not more than \$150,000, has a department of vocational edu-

cation whose duty it is to supervise and approve the state-aided schools of the commonwealth. This department, which is a distinct phase of the work of the State Board of Education under the Commissioner, has for the coming year a deputy and a staff of five regular agents, to whom are added, for special kinds of supervision during the year, at least five additional persons. New York City, with a population of more than five million people spending not less than \$250,000, has practically no supervisors under the Board of Superintendents for this task.

The Board of Superintendents face the large primary responsibility under the Superintendent of Schools for the work and the Superintendent is responsible to the Board and the Board, in turn, to the citizenship of New York. If the work of such a department for vocational education is effective it must have large freedom to adapt itself to the conditions of its problems. The Board of Superintendents can best discharge the task devolving upon it by confining its activities to the establishment of broad policies and principles on the recommendation of the responsible department. This would leave the director of the department of vocational education and the experts under him large initiative and freedom in applying these policies and principles to the establishment and operation of schools.

The largest note in municipal government today is the location of definite responsibility so that those so responsible who have failed may be relieved of the task and others chosen to discharge it properly. Responsibility of this character in a department must be accompanied by sufficient authority and freedom to afford a fair opportunity to work out the problem unhampered. Vocational education for New York City requires a distinctive management of the task. Distinctive management requires the establishment of a department for vocational education. The location of definite responsibility requires that this department of vocational machinery should be under the Board of Education. This filters the responsibility for its work through the Mayor who appoints the Board of Education, down through the Board of Education to the City Superintendent of Schools, the Board of Superintendents under him, to the department itself. Unity in organization at the top coupled with the distinct separation and organization of the machinery to deal with the problem. This is not only sound business and educational procedure but absolutely necessary for success.

The same principles will apply to all those special departments of the New York schools, like the Bureau of Research and the Board of Examiners, which are in any way concerned with vocational education in the schools. It is becoming more and more apparent that vocational education will succeed whether handled by the public schools or any other way in proportion as its plans are based on a thorough knowledge of the conditions and problems to be met in the vocations, in the schools and in the attempt to

bring the vocations and the schools into helpful cooperation with each other.

The Bureau of Research has already been created within the New York public school system. This will be needed as the work for vocational education progresses for continued study and investigation in order to gather the data upon which effective schemes of training can be based. The organization of a separate bureau for the investigation of matters connected with vocational education would probably under the conditions which obtain in New York City be confusing and inadvisable. The simpler plan would be to organize under the Director of the Bureau of Research two divisions or aspects of its work; one having to do with the affairs of the regular education and the other with the affairs of practical education. This would centre responsibility by giving unity at the top in administration.

There are undoubtedly by-products which result from studies within the regular schools that would be helpful for vocational education. There are undoubtedly by-products which result from a study of commerce, or of the industries or of the home which would be of large benefit for regular education. Gathered by one bureau, these benefits would be conserved and interchanged. A recognition of the two distinct functions of the Bureau would, of necessity, require the employment of assistants of special capacity and experience in dealing with matters of importance to regular education and likewise of specially qualified assistants to deal with matters of importance for vocational education.

The success of any vocational school or class rests primarily with the teacher. Many of the teachers, at least, connected with the work must have for their largest asset thoroughgoing and successful experience in the trades or vocations which are being taught. The selection of these teachers through certification and appointment is one of the most difficult and at the same time most critical tasks confronting the New York schools.

The Board of Examiners is empowered by law to certificate all the teachers employed by the New York public school system in any capacity. This Board has through the years of the past had an exceedingly difficult burden placed upon it, and, on the whole, has discharged its task exceedingly well. Whatever else may be said about the system of certification which has been built up in the New York schools, it must be conceded without hesitation that the Board of Examiners has stood with its back to the wall against the press of partisan and personal politics which it has fought most successfully. Undoubtedly, a large part of the excellent work done by the New York public schools must be attributed to the courage and the honesty which the Board of Examiners has shown in the selection of teachers.

Teachers for vocational subjects, particularly teachers of industrial education must be tested by different standards from the purely academic ones used in the selection of regular teachers.

In selecting teachers for any trade or vocation we must first determine for that trade or vocation the length and character of trade experience or contact which should be required as the minimum. Likewise, the extent of trade knowledge and the ability to use that knowledge in the trade. So also with the ability of the candidate to give instruction in the trade or in subjects related to the trade.

There are more than four hundred trades or vocations in New York City which present possibilities for training of one kind or another through the schools. It is obvious that for each one of these vocations a different set of standards must be established and that no one person or no one group of persons can evolve these standards only with the help of employers and employees who have themselves had successful experience in the line of work under consideration. What is needed is the establishment of machinery and devices which will make this help available.

It is equally true that the written examination alone cannot serve as a satisfactory method of testing the fitness of a prospective teacher of a vocational subject. Not only must the character of the written examination be different from that employed for regular teachers, but credentials giving evidence of previous experience and preparation and practical tests of the ability of the candidate must be widely employed. Here again, no one person or group of persons will be able to handle the task without the close and intimate cooperation of the practical man.

Realizing this situation, there are not wanting those who believe that a separate Board of Examiners for teachers of vocational education should be established. Under the present charter and statutes for the City, this separation could only be accomplished through special legislation in Albany.

Another way which lies entirely open for adoption for the present at least requires a square recognition on the part of all concerned that the Board of Examiners has two phases or aspects of its work; one, the certification of teachers for the regular schools and the other, certification of teachers for the vocational schools and classes.

A clear understanding of the entire difference in character between the task of testing regular teachers and that of testing vocational teachers is at the present time fundamental. There follows in its wake the necessity of organizing separate machinery under the Board of Examiners for the selection of vocational teachers.

The limits of this address will not permit the detailed description of any proposed plan. Some one or more of its members should be especially delegated by the Board of Examiners subject to its direction, to organize special committees representing the different trades and occupations for which teachers are from time to time to be certificated. These committees, in my opinion, should also include representation from the department of vocational edu-

cation which is to be responsible for the work of vocational teachers, after they have been appointed. A separate committee from each trade should include both employers and employes of recognized standing who have special interest in the problem and are able to contribute the information and assistance necessary to an effective plan both as to standards and as to methods of testing the prospective teachers of subjects relating to the vocation which the committee represents.

It is altogether likely that such a service would be rendered by such representative persons without compensation and furnish a very valuable way by which the vocation could cooperate with the schools. The work of these committees would not be burdensome. They could be called together at such times as might be necessary in order to revise standards and methods of testing in the light of the developments within the trade and the success of the teachers previously selected. Should it be deemed advisable to pay for the service the Board of Examiners could readily secure by order from the Board of Education a modest appropriation sufficient to meet the expense.

There should be large flexibility in adopting the actual testing of the candidates to conditions. Written examinations, if employed, should be of a very practical character testing the ability of the candidate to employ his knowledge in the trade itself. Much attention should be given to the careful gathering and weighing of information as to previous trade experience, academic preparation and success of the candidate either as a workman or as a teacher. Wherever it is thought advisable practical tests could be made of the ability of the candidate either as a workman or as an instructor in trade processes or in subjects related to the trade.

All the information of every kind concerning the candidate, including written examination, certificates, diplomas, recommendations, confidential communications and records of practical tests of any kind should be regarded as in the nature of credentials to be passed upon finally before the Board of Examiners, together with the recommendations of those conducting the examinations. This would leave the Board of Examiners free as a court of last resort to pass upon the fitness of the applicant, just as they are in the case of the regular teachers.

What is needed above everything else, is that the Board of Examiners should recognize the difference between this task and that of certificating regular teachers, should organize the plan of passing upon their qualifications so as to secure the help of the laymen, should adopt the recommendations of those who are in the best position to know what should be done, should give large freedom and flexibility in adapting the scheme to the problems and difficulties which must be met. All of this the Board can do and at the same time, as the court of last resort, discharge successfully its important task of certificating competent teachers for the schools while protecting the service from politics and corruption.

All that has been said with regard to the Bureau of Research and the Board of Examiners is equally true of every other department of the New York public schools whose duties touch in any way the work in vocational education.

### *The Search for Special Groups*

We have all heard the story of the man who had a dollar so close to his eyes that he could not see the sun. There is very great danger that in our enthusiasm for this, that, or the other excellent scheme or plan of vocational education, we will lose sight not only of the problem as a whole, but of other schemes and plans equally excellent and equally necessary. Any intelligent and comprehensive approach to the question as it presents itself in its bigness in New York City should begin with a recognition of the many different groups of people whose rights must be served and whose needs must be met.

The workers of New York City, both present and future, differ greatly from each other in ability, in preparation, in interest, in aptitude, in opportunities and in ambition. It would be unjust and narrow to adopt on an extensive scale any one scheme or plan which met the needs of some and to neglect at the same time those of all the rest. There is but one guiding star to follow in promoting vocational education here or elsewhere. We must give those whom we are to reach what they need and what they want, not what we think they ought to want.

Before we can adopt devices for meeting the vocational needs of the present and prospective workers of the City we must first have a clear understanding of the different kinds and groups of persons to be trained.

Here are more than 50,000 children over twelve years of age, who, somewhere near their fifteenth birthday must make a choice of work upon which they will enter at once or for which they will take more training through the schools. New York City has already begun the development of pre-vocational classes through which, by coming in contact with real experience drawn from the world of work, these children may come to know what they want to do and what they are fitted to do so that they can define the choice of a vocation. The excellent beginning which has already been made should not cease until these opportunities have been opened up to every child who is not destined for a college and professional career.

Here is another large army of thousands of children who do not wish to attend the regular high school nor to enter at such an early age upon wage earning. Their parents desire them to continue their education longer in school and want them to receive training which will advance them in the direction of successful employment when they leave the schools. These children are of two different classes. Some of them want direct preparation for

some trade or occupation upon which they can enter to advantage after they become sixteen years of age or more. For them we need to establish separate industrial and trade schools like the Manhattan Trade School for Girls.

Some of them, and their number is legion, have not yet made up their minds what vocation they wish to follow. They want to extend their general education and to gain industrial experience and insight which will enable them when they face the problem of employment to make an intelligent choice of work and follow it with some understanding of its problems gained through the schools. For these, we need the development of general industrial or vocational schools like the New York Vocational School for Boys.

Here is a great army of children, 40,000 or more in number, leaving the schools every year to become bread winners at fourteen years of age. Up to this time, we have utterly neglected the educational rights and needs of these children as soon as they left the regular schools to become wage earners. Perhaps the most important problem before any American city at the present time is the development of continuation schools which will reach these young workers. They may be roughly grouped into four classes.

A small number, much less than 5%, are engaged in vocations which offer opportunities for the future and for which the schools can give valuable supplementary training.

We need to establish continuation schools claiming a portion of the time of these children for further training, which will increase their proficiency in their work, if they desire it.

A second group, and the most neglected, is made up of children who left the schools below grade, most of them not having passed beyond the sixth year of the elementary schools. We need continuation school instruction for these, which will give further training in the elementary school processes and develop general and civic intelligence.

The third group finished the elementary school course and now desire to continue general education as the way out to efficiency and happiness. We need to offer them in the time we can secure away from their employment, an opportunity to pursue further whatever studies they may desire.

A fourth group are engaged in dead-end or blind-alley jobs but have buried within them ability and skill for some desirable trade. Continuation schools should offer opportunities through prevocational training for these to learn what trade they should follow and then should, so far as time permits, give them training for it.

Here are thousands of young persons between sixteen and twenty-one years of age who are employed as apprentices or otherwise, in the skilled trades and vocations in New York City. We need to establish part-time schools and classes in order to give these young workers a chance to secure the preparation necessary for the widest proficiency in their employment, giving an avenue out to better wage, promotion and leadership.

Here are thousands of adult workers over twenty-one years of age who are employed in the unskilled, semi-skilled and skilled work of the City. Three groups present themselves. There are the men and women, many of them foreign born, who want more general education. Some of them want to learn our language. Some want such things as arithmetic and some want other general night school courses. Some want an opportunity to express themselves in art. General evening classes should minister to their needs. There are the men and women who want advanced technical instruction for the trades in which they are engaged. These should have the benefit of general evening technical classes of a very practical character, such as are now offered in some of the New York evening schools and in such institutions as the Mechanics Institute, Cooper Union and Pratt Institute.

There are the ordinary workers in the trade who want to learn new machines or new processes which require a greater knowledge of the related studies that will assist them in the ordinary work of their callings. For these, we need to establish separate classes which will give the short and brief courses necessary to serve the interests of specific groups of men in overalls. They are the bone and sinew of our manufacturing life.

There is a growing feeling throughout the country that as long as children under sixteen years of age are employed in industry, legislation should provide for compulsory instruction in continuation classes for them. In Wisconsin, a state-wide compulsory law of this character has already gone into effect and has resulted in the large attendance on the Wisconsin continuation schools. Massachusetts, New York and Indiana have local option laws which authorize boards of education in local communities to establish and make such continuation classes compulsory upon children under sixteen. Thus far, Boston has been the one city in all these states which has through its school committee adopted these compulsory classes. These will go into effect on September 1st of the present year.

Two years ago I had the pleasure of being associated with Mr. Arthur Dean, Chief of the Division of Trade Schools for New York State, in drawing and securing passage for a local option law which authorizes any city in New York State to maintain such compulsory classes and to require the attendance upon them of employed children between fourteen and sixteen years of age for not less than four nor more than eight hours per week between eight A.M. and five P.M.

This measure was known as the Wilmot Bill, having been introduced by Senator Wilmot. Its passage was greatly aided by many different civic agencies and had the hearty support of the New York public school authorities; the act being approved by President CHURCHILL, Superintendent Maxwell and Mayor Gaynor before being signed by the Governor. Probably no measure ever

passed by the legislature gave greater power into the hands of the Board of Education of New York City than the Wilmot Bill.

Under its provisions the Board of Education may establish and make compulsory the attendance upon continuation schools in any way it chooses. It may promote the work by making it compulsory upon specific nationalities or races, boroughs, industrial areas. The Board is empowered to select the children according to age, or health or employment or previous schooling or grade of school attained or upon any other basis which it may deem advisable. It would be possible under this act for the school authorities to single out one special group of fifteen children and require them to attend such classes.

One of the moving causes for this bill and for the hearty support which it received in New York City was the fact that it promised a substitute for the present utterly indefensible statute requiring the attendance upon evening classes of children under sixteen years of age who are employed during the day. These children after long hours of labor in the factories are compelled by law to attend evening school instruction.

The reports of District Superintendent Shiels and of City Superintendent Maxwell on the evening school during the last two or three years point out that it is not possible to enforce the law with the present force of attendance officers, that less than 25% of the children who come within the purview of the statute attend the evening schools, that they fall asleep at their desks and that physicians and social workers are agreed that such evening school attendance for these children results in far more physical ill than it gives educational benefit.

There are but two escapes from this situation. One is to raise the age of compulsory school attendance to sixteen. For this step, New York does not as yet seem ready. The other is to require employers to give these children an opportunity to attend continuation classes during the day.

Although this law has been in operation for over a year, not one single compulsory class has been established in New York. The problem facing the public school authorities is an exceedingly difficult one. They are not prepared to make the attendance compulsory upon from 50,000 to 80,000 children which would be necessary if they attempted a general enforcement of compulsory attendance. If they pick out specific groups of children or the children from specific vocations, the charge of discrimination and favoritism would be made.

The public school authorities have concluded up to this time to attempt the development of this continuation work on a persuasive and voluntary basis. Here and there encouraging results have already been secured, but the response to the voluntary appeal has, to say the least, considering the great magnitude of the task, not been very encouraging. At the present rate of progress,

New York will require a quarter of a century to deal with the problem.

Personally, I favor an amendment of the present act so as to provide that within five years from the passage of the amendment, the attendance upon such continuation classes will be made compulsory for the entire state. This will stimulate all local Boards of Education, including the New York City Board, to begin to deal with the problem in an experimental way in order that they may learn how to handle it in a large way when state-wide compulsion ensues. It will at the same time give due notice to local employers of the step which is to be taken at a later date in the enforcement of the act on a state-wide basis and stimulate them to deal in a cooperative way with the local authorities now so that they may be in a position to meet the expansion of the act.

In my opinion, it is advisable to develop prevocational centres and all-day industrial and trade schools by industrial and commercial areas, choosing those that furnish the most promising opportunities. Continuation and part-time schools on the other hand should be spread out over all the five boroughs in order to take advantage of every possible opportunity of inducing employers to cooperate.

The effort to reach working people in evening schools should also be made through classes that are offered at points favorable to workmen in all the five boroughs.

### *Cooperation with the Industry*

In the ancient days, master and workman felt and discharged a common duty and responsibility for the training of the workers in order that the integrity of the craft might be preserved. Modern industry shows a very decided tendency to throw the entire burden of expense and trouble of every kind on the schools. Part of this is, of course, due to the fact that the schools have not yet been able to present to modern industry a promising program of cooperation.

It is certain that the school men cannot solve this problem by themselves. They must have the close and intimate help of employers and employees in the trades and vocations in dealing with the question. Time will not permit here any detailed description of ways in which this can be done. Representatives of the trades ought, and I think will be willing, not only to confer with the public school authorities but to serve without compensation on committees provided the public school authorities recognize the work of such committees by using the information and the recommendations which they offer.

With the school authorities as the third part, an increasing number of employers and trade unions will be willing to confer together upon ways and means by which they can aid the schools

in the training of workers. A growing number of employers will find themselves willing to recognize educational training by larger wage and to go to the trouble to so organize their work as to offer their young workers time away from their employment for other training.

The expense of vocational education in New York City when developed to the full would be enormous if all of it were undertaken by the schools. The vocations themselves must bear a part of the cost. Shops must offer the opportunity for the shop training, leaving the schools to give related instruction. In many cases, shops and factories and commercial houses must provide facilities for classroom instruction under the roof of the plant. Where great industries like the garment trade draw together large numbers of workers into unions having large resources, employers and unions should be asked wherever possible to undertake to a large extent at least the joint burden and responsibility of training their own workers.

### *Taking Mahomet to the Mountain*

The establishment of vocational education in the community requires a campaign of promotion at the outset. Public sentiment must be roused, the value of the work must be set forth, the advantages of the schools advertised. Schools and classes must be located at favorable points. We must carry the facilities for training close to the worker. Whenever necessary, we must take the training into the very shop where he is employed, always with the reservation that the training paid for at the public expense must be controlled and supervised by representatives of the public.

A distinctive management for vocational education within the school system through a separate department charged with the duty and responsibility for its success. The employment of expert service in administration and supervision with large power of recommendation, initiative and direction. The establishment of machinery bringing employers and employes into hearty co-operation with the vocational work of the schools and using the practical advice and assistance which they contribute. A search after the many different kinds and groups of persons—young and old—not yet reached but needing the help of the schools and the beginning of schemes of training to reach them. A recognition of the duty and responsibility of the vocations themselves, particularly the larger ones of bearing a share of the task of training their own workers. Large emphasis at the present time on the promotion of part-time and continuation classes for wage earners, who are so numerous and so long neglected. A legitimate campaign for vocational education which will bring its benefits close to the workers and carry its facilities wherever necessary to reach them. These are essential features of the program for New York City.

CHAIRMAN: I will now introduce to you Dr. GUSTAVE STRAUBEN-MÜLLER, who has been an unusually careful student of industrial education and a recognized authority in the development of that movement in Germany. The establishment of the Vocational School for Boys and the Manhattan Trade School for Girls in this City was due, in a large measure, to his efforts.

DR. GUSTAVE STRAUBENMÜLLER, ASSOCIATE CITY SUPERINTENDENT OF SCHOOLS, NEW YORK CITY, ADDRESSED THE MEETING AS FOLLOWS:

YOUR HONOR, LADIES AND GENTLEMEN: A few years ago an attache of the embassy of a leading European country was investigating a matter entrusted to him by his government. He was greatly surprised and impressed by the fact that American employees were superior in general intelligence to the people of the same class in his own country. He determined to find a reason for this. He found that the railroads, the stores and the manufacturing plants at that time were doing nothing to develop this general intelligence. He determined to search farther, and decided finally that it must lay with the child, its schooling and general training. This foreign student unconsciously contributed his mite to the tendency which led to the naming of the 20th century as the "Century of the Child." It remained for this century to take the child in all its relations to life from the realm of indifference to the high plane of a vital issue.

For to-night's discussion on vocational training let us fancy that New York City is a vast stage, and let me arrange the stage setting for you. On one side of this vast stage there are the most diversified industries and occupations found in any city of the world. On the other side of this stage there are a million children in schools of various kinds, the majority of whom will leave school at fourteen years of age without graduating.

We know that these children and these industries and occupations will sooner or later become interdependent. The problem is, therefore: What can be done by the educational authorities, by the employees and by the employers to fit these children to continue and perpetuate these industries and occupations, and to help to bring about conditions that will be satisfactory to the child and to the employer, and the community at large?

Let us turn to the industries and occupations to try to find out what the conditions are that must be met.

The margin of profit in business has been so diminished in recent times that reduction of waste of all kinds has become a great factor in the successful conduct of a business. The skilled workers, trained by others, no longer swarm to this country to do our skilled work. The industries that formerly relied parasitically upon the influx of skilled workers must now increasingly depend upon American skilled labor. Judging from reports and statements, there seems to be a dearth of this kind of labor, and this scarcity will increase and will affect disastrously our business interests, unless something be done to prevent it.

The employer is not yet quite sure what he wants the schools

to do that they can do, nor what he himself can do to remedy matters. He, too, in a small way, is experimenting. Both the merchant and the manufacturer complain that boys and girls who come to them are not well prepared for the work required of them.

On the school side of this scene we find children leaving at fourteen, for whom there are no places in the skilled industries until they are sixteen or older. We find no special attempt at vocational guidance, but we do find in elementary schools, in high schools, and in colleges a realization that something must be done to meet changed conditions.

What can be done to bring about an adjustment?

This is still a mooted question on both sides. But there is one thing that we do know. Nothing much can be accomplished until the city authorities, the employers and the employees themselves work in harmony.

If the employer will find out what he wants the schools to do, and what he can do in the matter of training; if the employees will take advantage of the proper training offered them; if the city authorities will give financial aid and encouragement, a scheme of vocational education for shop, store and schools can be developed.

We have in Mr. JOHN PURROY MITCHELL a mayor who senses the importance of this question and the need of its solution; who has weighed and is weighing the means suggested for its solution; who is taking a personal interest in the matter of vocational training; whose cooperation, leadership and advice will be of momentous value; whose presence here tonight marks a new epoch in the development of the education that fits a child to its future life. We have a President of the Board of Education whose enthusiasm is boundless in the cause, and a Board of Education that will support vocational training on sane lines. We have some manufacturers and some business men who are alive to the situation, and we have labor organizations willing to help. Thorough and extensive cooperation, however, is still lacking. Let me define some of the terms to be used tonight by quoting from a report of Dr. Shiels:

“Vocational instruction may include commercial, trade and agricultural instruction, and training in the home-making arts. Any of these types may be taught while the child is in the ordinary school, either in prevocational classes, or in a school specifically devoted to such work (e.g., the all-day trade school); in both of which cases the pupils are entirely under school authority and, therefore, not regularly employed. All-day trade schools are sometimes called ‘prevocational schools,’ as they undertake to teach a pupil some occupation for which, after proper trial, he seems especially fitted, but these schools should not be confused with the ordinary prevocational classes, as the work of the former is more intensive, and the equipment usually more complete. Again, we may have provision for the instruction of pupils who are regularly employed; if a portion of regular hours of employment

be devoted to such instruction, we have the day 'continuation schools'; if no part of the regular time of employment be used, and if the instruction be during evening hours, we have the 'continuation evening school.' An evening school might afford instruction in some branch of commerce or of the trades to pupils whose working hours were not devoted to the subject they were following in the evening. Such a school would be an 'evening vocational school,' but its pupils would not be 'continuation pupils.'"

Now let us see what actually has been done and is being done on both sides, and let us begin with the schools. The first question that arises is: Shall there be any vocational training as such in the elementary schools? Many educators and business men believe that the best training a child can receive for an industrial or commercial career is a good foundation in the fundamental subjects constituting the ordinary school curriculum, and that such training should extend over a period of seven or eight years. This is the prevailing opinion in Germany, whose rise to industrial supremacy is known to you all. So firm are the Germans in this belief that shopwork, which is very common in American schools, is seldom found in the German elementary schools.

If, therefore, we were to follow in the footsteps of Berlin, for example, we should have no shops or kitchens in our elementary schools. But society in Germany is not democratized as much as it is in New York. Therefore, we have a different problem to solve. In Germany a son usually follows in the footsteps of his father. If his father be a mechanic, he becomes a mechanic; if his father be in official or business life, he aims to get there himself. If his father be in a profession, that profession will be his goal. Thus the personnel of the industries, the professions and business are recruited in quite a natural way. This is not quite so with us, and hence we do not in the same degree get the advantages that come from inherited dispositions. Our girls and boys are not only not predestined for their life work, but the whole matter is left frequently to chance. It is for this reason that vocational guidance in this country is a necessity, and our problem a different one from that of Germany.

Drawing, considered the fundamental subject for all trades, was introduced into the elementary schools some fifty years ago. It was introduced for industrial purposes. There was little practical gain, because the lack of cooperation between the trades and the schools led to wrong methods of teaching. Today the teaching of drawing is more along practical lines. The next subject introduced for the development of manual skill was manual training, including shopwork. These subjects, regarded at first as only of cultural value, now have a distinct trade tendency. Shopwork is pursued not only in the interest of education in general, but also in the interest of trade education.

Shopwork in New York City is being taught to 60,000 boys, of whom 4,861 are below the 7th school year, i.e., the Board of

Education is gradually extending shop practice to all boys above a certain age, instead of restricting it to the boys who are in the 7th and 8th years. More than 60% of the teachers of shopwork are practical mechanics. Work that would have cost the Board of Education \$8,000 was done in the schools last year. The tendency toward the practical is evident. Shopwork might be made more practical still if the time devoted to it were extended, if a few power machines were set up in some schools, if simple sheet-metal work were added as an alternating course, and finally, if the course were made elastic enough to be adapted to some one worth-while industry in the neighborhood. Shopwork is daily getting away from its strictly cultural leaning; it is becoming more and more practical.

But real practical work in vocational training is being done (1) in our day schools, (2) in continuation classes in cooperation with certain firms, (3) in our evening schools, and (4) in our truant school.

In connection with our day schools we have three trade schools with a register of 1,327; we have two prevocational schools with a register of 362; we have one trade modeling class with a register of 15, and two schools in which home-making is taught, with a register of 823; we have also a truant school. It must be confessed that the total number thus being instructed, about 2,527, is entirely inadequate: we are not reaching the masses. In the cooperative plan with various firms we are instructing about 256 pupils, and in our high and elementary evening schools, we are instructing in trade subjects, in commercial branches, and in home-making about 17,000 pupils. I personally believe in the so-called trade school as we have it in New York City. It is intended for the 14-year-old boy (or girl) who knows what trade he wishes to learn and whose parents can afford to keep him at school for a year or two longer. These schools give a boy an opportunity to lay a good foundation for a skilled trade at an age when he can not get an opening in the skilled trades. In these schools for boys and girls we give a good knowledge of the technique and some speed in about eighteen trades or branches of trades, together with English and other subjects related to the trades. I believe in teaching the home-making occupations to girls because I know there is nothing more important to man than the proper care of man, and because I know that 85% of all our women over fifteen years of age become housekeepers. I believe in that prevocational school whose main object is to give a boy or girl a chance to discover his aptitudes and his leanings. The average New York boy gets no help in this direction from any other source, and, therefore, frequently becomes a drifter. I believe in our trade and commercial evening schools because they give an opportunity to the man, woman, boy or girl who is engaged at some highly specialized trade an opportunity to learn some particular process, to handle some one machine, and to make of him-

self a better workman or employee; I believe above all in the great efficacy of the continuation school on the cooperative plan because, with the proper laws and proper cooperation, we can reach the masses and supply their needs. The needs of the masses, like the masses themselves, are rapidly progressive in nature. We can not afford to sleep on this proposition.

What is this day continuation class or school? It is a cooperative school. The cooperation takes place between a firm and the Board of Education. The object of the school is to increase the industrial or commercial efficiency of boys and girls. It is conducted in the day time so that children of 14, 15 and 16 years who work may have the evening for rest and recreation. Health demands this.

In what does cooperation consist? The Board of Education supplies the teacher and the firm pays the full wages of the boy or girl while attending school, and also loses the services of the boy or girl during that time.

What is to be taught in a continuation class? Boys and girls who leave school at fourteen without graduating therefrom need additional instruction in the common subjects. No child under sixteen, and better still, under eighteen, should be freed entirely from school control. The continuation school keeps a boy or a girl under that control, and, in addition, closely relates the school work with his daily occupation. For a class of boys or girls in an organized business or trade very definite and very practical instruction can be provided; for a class of errand boys or messenger boys or hall boys continuation work in school subjects can be provided. In some cases of illiteracy, some firms believe it pays them to have the boys and men and women taught how to read and write, as, in their estimation, it has a direct bearing on their efficiency in doing purely manual work. One firm in England gives a four years' course to its girl workers without giving any direct training in the work of the factory. They believe it pays. All who have tried it believe it pays. There is no doubt that the continuation idea carried out to its fullest extent reaches more boys and more girls than any other kind proposed. Why is the continuation school so superior? Because the boy studies where he works and while he works; his studies are not a thing apart from his work; he sees the practical application of his studies and the need of such application. He has a motive, than which there is no superior impetus.

Where is the continuation class to be taught? It is difficult to conduct continuation classes in school buildings in New York City. Large business houses, factories and stores in New York City are usually located in non-residential sections, where there are practically no schoolhouses. To ask these employees to travel many miles to a school from their places of employment involves too great a loss of time for the firm and the employee. The solution of the problem is to rent buildings or to erect schoolhouses

in such sections, but no one can expect The City of New York to do this. Therefore it is the plain duty of the business man to supply a room or a space in which the proper kind of instruction may be given. Or, two or three or more firms of the same character and located in the same section of the City may rent a nearby loft for school purposes. As soon as we become convinced of the value of such schools, rooms will be furnished by the firms. But we shall never be convinced if we do not experiment with these schools, to learn how to adapt them to conditions as they are.

The danger of the continuation school or class lies in the misunderstanding of what constitutes such class. Boys or girls attending a continuation class should be classified according to trades and occupations; schools not so organized have proven a failure wherever they have been tried.

In connection with the day continuation classes it may be noted that there is a law in this state permitting the Board of Education at any time to compel attendance of working boys and girls under sixteen between the hours of 8 A.M. and 5 P.M., and that an employer who will not allow such attendance must surrender the privilege of employing such labor.

The evening trade and commercial schools are, next to the day continuation schools, the means of reaching the greater number of students. While these schools are primarily for the student who has trade experience, i.e., who is working at his trade during the day, yet there is even in these schools a large place for insight into trade processes for those without trade experience.

The student in the evening school gets from the school what no shop can give him, for lack of time. He is a most satisfactory student because he relates every step he takes to real conditions of business and manufacturing. The teachers of trade subjects in all our schools in which trades are taught are mechanics; they are men and women who have been in the trades and who, in many cases, are still working at the trades they are teaching.

Why did the day trade schools and the evening trade schools develop before the continuation or cooperative schools? Simply because their organization was free from all complexity; they could be organized by the Board of Education without the cooperation of an outside body. Why did the schools established by corporations grow more rapidly than continuation classes? For exactly the same reason, because their organization is simple. Cooperation between two bodies whose functions and methods are entirely different is a complex process needing nice adjustment. The object of both parties to the bargain is really the same, viz., to improve and to increase the industrial and commercial capacity of the employee, but the manner in which it is to be accomplished offers some difficulties. In the first place, the viewpoint and methods of the school man and the business man are popularly supposed to be different. Hence the present need is to get these two training bodies together for the purpose of understanding each other.

The second difficulty is to find a place in which to teach boys and girls already employed. This I have already touched upon. The third problem is the problem of the teacher.

Besides the various kinds of trade and commercial training referred to, manufacturers and owners of large stores are doing their own training. So important and far-reaching is this movement that already a central office has been established in New York City by the National Association of Corporation Schools for the purpose of assisting those belonging to the Association in establishing schools. Fifty or more of the largest corporations in the United States have joined in this movement. The object of this Association is to develop the efficiency of the individual employee, to increase efficiency in industry, and to have courses in established educational institutions modified to meet more fully the needs of present day industry.

Labor unions have established schools of their own, notably in the printing trade. Besides these there are private and philanthropic enterprises that have been in the field for a long time.

If I were in full control to do as I thought proper, and had the means to carry out my ideas, I should select for experimental purposes some section of the City, such as Greenpoint, in which I should develop the continuation idea both in day and evening schools. I should attempt in this section first to stop waste by some method of selecting boys and girls in the elementary schools for the work which they seem best fitted to do; in other words, I should guide them. This plan, if followed even superficially, would stop some waste of time on the part of the child, and also on the part of the employer after the child is in business. In other words, I should begin selection, and possibly a little specialization in the elementary schools, even if I had to do it on a theoretical basis.

I should depend for success upon intelligent cooperation, which, it is possible, would have to be developed and nurtured. I should get the schoolman to know what the shops require, and employers and employees to know what the teacher can do.

I should try to concentrate upon this movement all the social, business and educational forces of the section. I should exhibit the results of experiments to both employers and employees.

I should continue the Mayor's idea of conferences, and lastly, I should be hopeful that a way could be found to maintain our industrial efficiency, even without the aid of foreign-trained workmen, and a way could be found to prepare our industries for world-wide competition, and a way could be found to gain the ability to adjust ourselves quickly and successfully to changing economic conditions.

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CHAIRMAN: We are going to omit one or two of the musical numbers. I know we are all anxious to hear fully from Mr. WIRT. I do not want his speech to come too late in the evening. You

can make all kinds of plans, good or bad, but however good we cannot carry them out without money. Money comes through the Board of Estimate and Apportionment. Now when the Board of Education goes down there to ask for funds there are two officers whom it must face and whom it must persuade—the Comptroller and the Chairman of the Committee on School Inquiry. Both are here this evening and I will ask both to speak now.

HON. WILLIAM A. PRENDERGAST, COMPTROLLER OF THE CITY OF NEW YORK, ADDRESSED THE MEETING AS FOLLOWS:

YOUR HONOR, LADIES AND GENTLEMEN: Neither his Honor the Mayor, nor the energetic President of the Board of Education need be in the slightest doubt but that I thoroughly understood the reasons for my being here. It is one of the privileges of the Comptrollership to be invited to select parties ultimately for the discussion of some little matter that will cost the City some little money; to large dinners where great public problems are discussed to which the City treasury should unquestionably be allied, and then to public meetings such as this, but I am glad to be here any way, even if for only financial convenience.

I do not intend to say very much because I know that you have upon the program two very distinguished speakers from abroad and that you are anxious to hear from them, and all that is possible of the evening should be given over to them.

I want to say for the Board of Estimate and Apportionment, if I may assume to speak for it in a very modest way, Mr. Mayor, that it has become more thoroughly appreciative every month of the importance of a better relationship between that Board and the Board of Education, and I think we can say with justice, or with truth or accuracy, that the estimates, or rather the budget, of the Department of Education for this year was made up more fairly, more accurately, with less misunderstanding, or disputes, with fewer altercations between high officials in the Board of Estimate and Apportionment and very high officials in the Board of Education than any budget in our history, and we are all very glad that this is the case, and anything that any members of the Board can do to continue this era of good feeling and make it a permanent one, I think the members of the Board want to do. I think the Board of Estimate and Apportionment has become so thoroughly appreciative of the great work that you are supposed to do, the responsibility that is upon you, that this year it organized among its standing Committees a Committee known as the Committee on Education, the first time the Board has had such a Committee. To this Committee is being referred all questions pertaining to educational matters, and I am sure that this scheme is going to be very much more satisfactory than the old one, because now to every question in which the Board of Education is interested the same Committee will give its attention. And we also have as the very efficient Secretary of that Committee one who is an educator herself, who understands the requirements of the educator, Mrs. Ford. Really the members of the Committee and the Chairman do very little indeed—we are only supposed to

vote when it comes to money. Now that was to be the principal point of my address and I will address myself to it.

We are all very well aware that New York City must meet the pressing economic demand of the times by preparing her children properly for a vocation, no matter what that vocation may be. Very often when you use this word vocation people think you are only referring to trades, but of course vocation covers the entire field of human endeavor. Now I believe that New York City has already done a great deal in that respect. I listened with admiration to a most explicit statement of the work that New York City has already undertaken from Superintendent Maxwell some two weeks ago tomorrow, and after listening to that statement—we hope to give everybody an opportunity to read it—no one will be under any misapprehension that New York City has not been entirely alive to the fact that she had a great problem before her. One reason why more progress has not been made in this work is that the demands of the Educational Department have been so great that it seemed almost impossible to furnish all the money that had been asked for. Great cities like New York are conservative, they do not move as rapidly as Gary, Indiana. New York, like all other great cities, usually permits other communities to experiment with things before she undertakes to do them, and after we undertake to do them, we do them.

Now, in order to carry out the designs of the Department of Education we realize that money, as I have said, is required. I do not suppose that it is possible—I base this statement upon my experience of the last four years in the Board of Estimate and Apportionment—I do not suppose it is possible to economize in very many directions, but I will say this (and I am sure that I am not going outside of the bounds of prudence when I say it) that supported by the very earnest wishes of his Honor the Mayor, and imbued as I am with full sense of our responsibilities towards this question of vocational training, and speaking, I think, on behalf of all the other members of the Board of Estimate and Apportionment, that if there will be evolved what seems to be a thoroughly comprehensive plan for developing the vocational idea in our public school system, the Board of Education when it comes forward with that plan is going to receive as substantial support as the generosity of the city treasury will warrant or justify.

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CHAIRMAN: I now have the pleasure of presenting to you another distinguished visitor, Mr. H. E. MILES, President of the Wisconsin State Board of Industrial Education.

MR. H. E. MILES, PRESIDENT OF THE WISCONSIN STATE BOARD OF INDUSTRIAL EDUCATION, ADDRESSED THE MEETING AS FOLLOWS:

MR. MAYOR, MEMBERS OF THE BOARD OF EDUCATION, LADIES AND GENTLEMEN: There are two kinds of schools in this world, one of which we, in America, seem to have utterly overlooked. One is the school of childhood—a place for babies and immaturity. In it are all our children from the sixth to the fourteenth year, a precious lot in whom are our hopes and our dependence. They are however, wholly receptive, imitative, obedient, absorptive. They are doing nothing in an objective way that is helpful or productive. The educators' task in this school is to develop scientifically and in all directions the faculties of these little ones that they may be alert, well balanced and, in due time, creative. The highest type of scientific and professional training is essential for this work. A half million teachers are devoting their lives to this school. We are criticizing them very severely and, from my standpoint, justly in the main.

The other school is the school of the day's work—the school of adult practical experience. In the first school, the school of childhood, are only a fifth of our people—in this other school, the school of the day's work, are three-fourths of the people—are the creators—the burden bearers—all of the hope and the fear of the present day, the good and the evil and the entire making of the life of the present.

In making this distinction, I am overlooking that little 3% of the people who go through our high schools and that exceedingly small number, a fraction of 1%, who go through our colleges.

Into this second school, the school of the day's work, full of anguish and hope and fear, of blind but fierce endeavor, the American state must now enter. It must correlate knowledge with experience, make clear the pathways of the mind from lowly place to higher, and higher.

Aware and alarmed at the human waste, the loss and sacrifice, not of a part, but of the majority of our people, in the struggle of life, we are inclined to turn upon the first school, the school of childhood, ourselves ignorant of the second school—and its separate needs—and insist that the first school, the present common schools of the country, now assume the impossible task of training for industry, of teaching the actual practical requirements of every occupation in the world.

We blame this first school because 80% or more of its children leave its four-walled cloistered precincts at their fourteenth birthday, and propose now, by various and sundry devices, or, perchance, by sheer force of law and the police officer, as in cities in this state, to induce or compel what we can of these fourteen-

year children to stay on in this school of childhood, to stay away from the world of the day's work and of accomplishment as though work and accomplishment are things to be avoided, unworthy and degrading.

### *Adolescence*

Children do not leave school at fourteen simply because they are fourteen—nor because the law permits, but because they are adolescent. The reason is psychological—pathological—you can't keep the butterfly from leaving the chrysalis at the appointed time without hurting it or killing it. You can't keep the flower from bursting from the bud without starving it. At adolescence the will and the creative faculties burst into flower—those faculties and capacities which are the most precious that we possess and that most distinguish us from the brute creation. I shall never forget when, on mentioning this to Mr. Edison, he exclaimed: "Yes, I know that—I've been to the psychologists—I've been all through that—to bind the adolescent child to the wooden bench and the white page with the back marks on it—to say incessantly to his creative impulses: 'Don't, don't, don't,' is to palsy his will, as you would palsy an arm by binding it to the side. That's why so many men, most men, have little will power and are ever afraid to do those things which judgment clearly directs."

We adults may mislead fourteen-year children. We may introduce into the school of childhood various toys and playthings—even things made for altogether serious use—hammers and chisels, saws and sewing machines, needles and cooking-utensils, and no one can believe more than I in the introduction of these implements, and through their use, teaching the mind through the hand and eye, and preparing the child, in a childish way, but just as practically as his little mind makes possible, the beginnings of those things which he is to do when he is a man.

When a great Spartan king, 2600 years ago, was asked "What shall we teach the children?" he answered: "Teach them what they are to do when they are men." The schools of America have tried only to develop those general faculties and perceptions which may enable the child quickly to grasp the essentials of the particular occupations upon which they must later enter. And for want of detailed and particular instruction sixty per cent. of our children—more than half of all who are born in America—concrete or hand-minded, unable to accept of mere generalizations, at fourteen are still in the fifth or sixth grade and then quit school.

### *The Cost*

According to a recent statement of the National Society, three million of these children leave school each year at fourteen. The cost per pupil in every vocational or trade high school, of which I know, that is, schools like the Stuyvesant High in New York,

the Cass in Detroit or the Lane in Chicago, is about seventy dollars in running expense and thirty dollars in interest on plant and up-keep, or one hundred dollars per pupil per year. To this is to be added at least another hundred in loss of wages, sometimes sorely needed, or a total loss to the city and the child of two hundred dollars per year, or six hundred million dollars for the three million children per year, on the assumption that they should all have such training, either in the women's arts, manufacturing, commerce or agriculture. Twice this sum, if we include, as we must, the fourteenth and the fifteenth year, and four times if we go to the eighteenth year, as is contemplated for all continuation and part-time schools. The Superintendent of Schools of Pennsylvania voices the general judgment that such a plan of teaching the vocations would bankrupt any state.

Make all the allowances you will from the figures here suggested—and great allowance is necessary—and you still have an annual expense very far exceeding the present total cost of the public schools. An expense that must be noted with a billion mark. Los Angeles, a city of a half million, has done its best in this direction. Its Superintendent and Board of Education are brilliant and able. But with a constantly rising school tax a forty per cent. increase in the appropriation was demanded a year ago—about two-thirds of this increase was for the increased expense due to the introduction of the so-called vocational element. I sat repeatedly with a committee of very able citizens of that community, not all of them men, some of them very closely allied with the school work, and here is the most important consideration of all: they could not report upon that vocational work, much as they would have liked to, without declaring that the introduction of that work in palatial school plants, under conditions that might have been called ideal—and certainly were far from real workaday conditions, has caused many children to dislike their own homes and hate work.

In consequence of what, under the circumstances, may be called the extreme development of this type of vocational work, an unfortunate situation has now developed there, with a possibility that some of the best educators in the country will suffer from the general belief that the work has been overdone, that the city has been given "to much of a good thing." Years of experience caused the committee mentioned earnestly to recommend that any city undertaking to introduce the vocational element into its public schools do so with very considerable moderation, and as a modification of its present system rather than a radical overturning.

I believe this to be somewhat the experience in substantially all the cities of the United States, and beyond question in the cities of Europe. There were many of these vocational or trade high schools having the vocational element as the centre of interest, and effort, in Europe, fifteen years ago. There were many less five years ago, and a friend of mine, recently returned, found that most of those he visited five years ago have now disappeared.

I wish to emphasize with all the force of which I am possessed, the need of at once introducing the vocational element, of introducing it in the most practical way possible, and of doing it mostly for its cultural effect at decidedly small expense and through the employment of exceedingly practical teachers of long and successful experience in the vocations and not necessarily with extended pedagogical training, for such training cannot now be secured in addition to the other and more necessary qualifications, but must be acquired largely along with the instruction in night courses, summer courses and where may be, by a ninety days training, as now in Boston, where picked men and women from the industries are being prepared to teach thousands of pupils in the continuation classes to be opened there next September.

We will be a far happier, nobler, more efficient and godlier people when our children in the elementary schools, and more especially in the latter years in those schools, are taught the value and use of the hands, the use of the fundamental tools of the race and the dignity of the occupations that depend upon them.

All this work, however, is primarily the task of the professional educator. Not as he has been, but as he will be shortly when he, together with the leaders in all other walks of life, becomes the leader that he ought to be and rises to the opportunities and responsibilities of the new and wonderful era in which we live.

### *True Vocational Education*

True vocational education is, however, a task quite beyond any single institution apart from the rest of the world. It calls upon all the energies, spiritual, intellectual and physical of all the people in all the walks of life. We must get a new conception of the value and the dignity of the day's work—not, may be, work as it is, but certainly of work as it ought to be and as we are about to make it. We may not know why Adam was created. May we, however, recall the only suggestion that the Bible gives? Immediately upon his creation he was "put in the garden to dress and to keep it." And, when the Infinite One sent into the world a part of Himself, The Only Son, He was put, not in the home of a teacher, banker or lawyer, but in a carpenter shop where in the day's work knowledge and wisdom came unto Him.

Carlisle says something like this: "All true work is sacred. In all true labor, be it but true hand labor, there is something Divine." In the impulse of the adolescent child to go to work at fourteen, there is, after all, this reaching for the Divine. In the poor child's hunger for the world of work and of real things is a tiny reflection of that Infinite Spirit that in the seven days made the world.

I would fear beyond measure the present day endeavor in many places, and more especially among school teachers, to keep children away from work, retard or break this initial impulse, could I think

that it possibly might succeed. But the older and wiser countries of Europe have tried out again and again and in each country, all our present speculations in this respect. They let the child that is concrete minded and ill fitted to a scholarly life, go to work at fourteen but they don't abandon him as we in America abandon eighty per cent. of our fourteen-year children and leave them half blind and for the most part helpless and uninformed to fight their way among and against thoughtless and selfish adults. The State goes into the occupation with the child—it is nothing less than a social crime that we have committed for tens of years, an infinite provincialism, in not taking a similar course. All the working places of America must be made in a measure places of education. This world exists for the people thereof. The nation, the state, the community and all that in them is. The first and chief duty is to make men and women, and the wonder of it all is, that every development of this principle that is right, that is full of the best intelligence and heart of the people, makes for all those several and personal profits, comforts and advantages which we each of us most desire. It is not socialistic.

### *Industry*

I might say that the heavy hand of the State must be laid upon industry to this end, but the opposite is true, the heavy hand, the hand of ignorance or inconsideration, would blight and destroy it. The hand that is laid upon industry must be a hand infinitely expert in industry—the hand that knows industry, its every impulse and symptom as the most skilled diagnostician in the world knows his particular kind of ailment—the hand of industry itself.

### *Labor*

So, we may say, that the heavy hand of the State must be laid upon labor, upon the parents and the children and all others who live by their hands, but this hand of the State also is a gentle and saving hand for it must be in the main, the hand of labor itself laid upon itself and all the intelligence and spirit that labor at its best possesses.

### *Practical Control*

It is easy to destroy, difficult to build up. The professional educator who must always lead in the academic schools knows little or nothing of industry. Just as he must lead and be respected in his leadership in the school where children are developed in their general faculties from the sixth to the fourteenth years, or a little later, so he must yield in this other work to the men of affairs and for the same reason. He knows the purely academic; they know the occupations. Neither can get on without the other,

each must measurably satisfy the other, but he who knows, in either case, must lead. This implies no discredit to the professional educator—this is an age of specialization. Men succeed in each line of endeavor now, much in proportion as they confine their efforts to a mere fraction of the general field, the lawyer to marine law or corporation law or criminal law or any one of a dozen other branches—never to all. Our colleges are independent, our normal schools, our boys' college preparatory schools and, in some States, even our high schools, and yet all are correlated and affiliated unofficially and as well correlated as those who severally direct them find possible.

This is the European experience, Dr. Kerchensteiner of Munich has one Board for general education and another Board for vocational schools. In Crefeld is a separate Board of nineteen members representing all the principal occupations of that city devoted exclusively and to the limit of its ability to its vocational schools. Says Dr. Kerschensteiner: "I could not get along any other way." This separate and practical direction of vocational education is the rule throughout Europe except in Russia and England. Our relation to these latter countries is suggested by Dr. Kerschensteiner's statement: "Nowhere except in Russia and in England have I seen such neglect of childhood as in the United States."

Those who are responsible for our present schools have been utterly unable to control and direct the body of our children after the fourteenth year. It is easily done. They must now leave it to those who can do it, as it is being done throughout Northern Europe, to the men of affairs, the men in the industries, employers and employees.

There should be established in New York City, as well as elsewhere throughout the country, a sub-committee of the present Board of Education, with power, consisting of an equal number of those who direct the industries and of those who work in them. Or a separate Board appointed by the Board of Education with power, not separate in the full sense and as that word has been interpreted by many in alarm and anger, but associated and affiliated as a sub-committee would be if only it has power. It must have power, otherwise after finding what to do with extreme care and consideration, its energies would be wasted and its patience exhausted in a vain endeavor to instruct the general Board, now and always taxed beyond its strength with its own general and especial problems. Furthermore, unless this sub-committee has power, there will always be the risk of a single member or a minority too impatient or unwilling to work out its problems in its own committee, rushing to the general Board with consequent confusion, bad feeling and inaction.

The confidence with which many men in public office and elsewhere insist that they be trusted in the management of affairs is too often in reverse proportion as they themselves trust others or permit others to be trusted. New York abounds with employers

and skilled workingmen and women, so large minded and humanitarian, so tremendously experienced in the needs of the occupations and of those who work in them, and of the citizenship of this great community, that not one but a dozen committees of five or seven could be named, half employers, half workers, and the odd man an especially selected educator, the City Superintendent for instance. These men could be trusted with the entire problem as no other men could be in the world. They will be trusted before New York gets right. Those representing employment, backed by the authority of the City and State, with ripe experience and broad judgment, will make you marvel shortly at what industry is prepared to do, and the representatives of labor will bring to the working people a new appreciation of the day's work with its new hopes and opportunities.

### *Wisconsin*

This has been done in Wisconsin. There we have a State Board especially named, consisting of three especially competent educators, three skilled employees and three employers. In every city of five thousand people or more, by compulsion of law, the local Board of Education has named a Board of Industrial Education, consisting of two employers, two employees and the City Superintendent. By statute the City places at the disposal of this Board whatever funds it requires, not exceeding a half mill on the property tax.

### *Compulsory Attendance*

Every child in these cities, that is in employment, has a working permit issued with care, not simply permitting him to work and enabling him after getting that certificate to do whatever he will for the rest of his life, but, instead, noting a particular place of employment where he must remain or come back to the all-day industrial school, or go to another permitted place of employment. If he leaves his employer, the employer, under penalty, must notify the authorities so that the school and truancy officers may check the child and see that these conditions are met. The State of New York has what we may call "Local Option." The Board of Education of this City by a simple majority vote can and should require the attendance of every child in employment upon the special vocational continuation or part-time school for the four hours a week noted in the law. New York City has from seventy to ninety thousand fourteen- and fifteen-year children out of school, in idleness or in "dead end" unpromising employment. They are disregarded, neglected, groping, purblind, fast losing all those spiritual values that make men; cheated by their own city of that education which is the birthright and chief inheritance of an American, for they are either misfits or unfitted, while education is "the fit-

ting of the individual to take his place and do his part in the life of his time and his community."

New York is not peculiar in having from seventy to ninety thousand of these imperiled youngsters upon her streets. While the number is greater, the percentage in proportion to population is substantially the same as in the average industrial city throughout the country. Think of sixty per cent. of all our children coming to this untimely end throughout the country in the fourteenth year and add to them the great unlettered immigration and say whether we are in peril of our institutions and whether any but ourselves, adult and responsible, are at fault.

In the cities of Wisconsin, there isn't a single such neglected child, except as he is beyond discovery and learning the vocation of artful dodger beyond the ken of the law. I would hesitate greatly to commend the Wisconsin experience to you, were it isolated or peculiar. It is the experience of hundreds of millions of people in the north of Europe. People very like ourselves and from whom we come, who send us three-fourths of the men and women who fill the commanding places in our factories, as foremen and superintendents, and do most of the work requiring real skill. And yet, our disinherited sons and daughters have a native ability, initiative and energy that we sincerely believe makes them naturally superior to all others.

### *The Utterly Obvious*

It seems exceedingly difficult for an American to do the utterly obvious. We see sixty per cent. of our children disinherited, educationally, and yet we refuse really to comprehend or notice. If, perchance, we do, we say, as did a State Officer of education in Philadelphia Saturday, "It would cost too much," when the Wisconsin Continuation Schools are deeply touching the lives of all working children under sixteen, and of many thousands of older people of all ages, at an average cost of not over fifteen dollars per year per person. Or, "It's right, but it can't be done," when it's the easiest thing that Wisconsin has done in many years. It's a positive joy, equally for employers, working men and all who are public spirited, happily to conspire in this common effort to uplift by the most intelligent processes known to man, the average citizenship and every needy individual, not by charities and corrections, but by the strengthening of the spirit, the intelligence and the personal efficiencies.

### *No Survey*

A man buried under his work and a year behind needs no imaginative, speculative expert, rushing about, conjuring up things that he might do if he had time. New York is forty years, as time has gone, behind North of Europe countries in the training for effective use of the faculties of her children for the day's work and

a life of service. Her first duty is to the forty-five thousand that she is disinheriting this present month. Her next, to the forty-five thousand she disinherited this day a year ago—and so on. She wants no new buildings—she had best not bury her feet in brick and concrete. Rent lofts in fireproof sanitary buildings, bring in the children from all the occupations for a half day during sunlit working hours—bring for them teachers chosen directly from the occupations to be taught. If you cannot handle 45,000 at once, as is probable, make allotments, as Boston is doing under a similar law, and get to work with them in September as Boston will do. This is simply beginning at the beginning. Your first obligation.

With the management right, you will be delighted with developments. In Milwaukee twenty-three languages are spoken. Her condition differs from New York's in little else than size. Beginning in this way she first taught very few trades. Her schools have been open continuously for eighteen months. She now teaches all the usual women's occupations and about ten men's trades. In September, after a vacation throughout August, she will begin with eighteen or twenty men's trades. Nothing is so easy or so natural with such a beginning as to add in sequence, as it were, trade after trade. Only with such a beginning can trades be taught with proper correlation to the general work, so that beginners may rise naturally to the more difficult occupations.

### *The Higher Reaches*

The foregoing is the kindergarten work, as it were, of vocational education. Few of us have contemplated the upper reaches. Industrially, we have been well described as a nation of stevedores bearing down to the ships of the seas the crude and semi-crude heritage of the ages, from forest, field and mine, with only enough of brains put into the shipment to make it fit for ship's cargo. Our captains of industry with marvelous ability are exporting tremendous quantities, but fifty-six per cent. of our exports of so-called manufactured products are of such crude stuff as beef, hides, petroleum, crude copper, flour and steel in its rougher forms, containing, as I estimate, from five to fifteen per cent. of manufacturing wages. Our imports are the reverse. Mostly the skill and brain of foreign workmen and industrial experts and engineers with only enough material to give their brains expression. The very stuff that we send abroad often comes back at ten and forty-fold price.

New York City is and will be the first to feel the effect of balancing unskilled native labor with the highly skilled foreign labor. Our expert vocational schools must reach as soon as possible from the humble beginnings noted to the topmost developments in art and science and all places between. The school teacher in the vocational school must provide the laboratory and the very latest experience and development in any part of the world to the in-

dustries of his community, under that practical guidance and co-operation of those in the industry that assure the heartiest right coordination and understanding in all directions.

### *In Conclusion*

There is every indication that vocational education as here described, based upon all previous successful human experience, is coming in the United States almost immediately. It is being demanded by the representatives of labor and of employment and in the common interest. Several cities will begin to do their full duty toward their children in September, as all towns in Wisconsin are endeavoring to do. It seems that New York will not fail. Not in this generation has there been such evident opportunity for her leaders so to benefit her people. The measure of that benefit can only begin to appear when her heretofore disinherited children and adult workers are brought into her schools and in their faces is seen the story of their inefficiency, their neglect, their hopes and their capacities.

That story is a wonderful one—I wish I might tell it. When you see it in your own city, you will understand all that has been said about the shortcomings of the present schools and will see a new light, a new hope and confidence, pervading the entire citizenship.

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CHAIRMAN: I believe that the Comptroller was right when he said that New York often permits other cities to make experiments and then takes the best of what it finds has been done and goes forward in achievement here.

I am not sure that it is always wise to wait for experimentation elsewhere, but I am sure it is entirely wise for us to study the best that has been done in other places and to make use of it. Gary may be an experiment station, but I am sure from what I saw of it during the brief time that I was able to spend there on our trip west that it is an entirely successful experiment under the guidance of Mr. WIRT. We found during our trip west nothing that was more interesting than the system that Mr. WIRT has developed and established in Gary. We have invited him to come here to-night and to tell us again the main features of that system and to hear from him the recommendations he can make to us based on what he has done and what he has learned in Gary. I have the pleasure of presenting to you Mr. WILLIAM WIRT, of the School System of Gary.

MR. WILLIAM WIRT, SUPERINTENDENT OF SCHOOLS OF GARY, INDIANA, ADDRESSED THE MEETING AS FOLLOWS:

MR. MAYOR, PRESIDENT OF BOARD OF EDUCATION, LADIES AND GENTLEMEN: According to many of our critics the only legitimate claim that Gary has to fame in its school system is the fact that it was visited by Mayor MITCHEL. I am sure that the school cities visited by the New York party were very appreciative of the courtesy shown them. But I am sure also that that trip of your Mayor, and the President of your Board of Education, and the persons that they took along with them, meant a whole lot more to the educational welfare of this country than visiting only three cities. The fact that the Mayor of New York City would take the time to travel a thousand miles to study school problems; the fact that he sacrifices his time here in the city to cooperate with the Board of Education in the solution of many of their problems, is a suggestion to civil officers and authorities everywhere in this country. One of the great difficulties with the public school system in the past has been that, in the opinion of mayors of cities, the business men of cities, the professional men of cities and the industrial leaders of cities, any one could teach a school and that a school problem existed largely for Fourth of July orators anyhow. To-day the school problem is being looked upon from an entirely different viewpoint. It is no longer a problem for young women teaching school, but it is a problem that demands the intelligent application of the biggest business men, the biggest officials, the largest and brightest professional individuals the community affords, and I know of no other city that has the opportunity to so develop the school system that will make the city a fit place for the rearing of children as you have here.

As I see it the problem is one of cooperation, and with the civil authorities and the school authorities cooperating as they are in New York City you have an opportunity to do things that many other cities don't have. I do not believe that any part of any city can solve its social problems alone. I believe that the schools should give up the idea that they are a separate entity in the community—a separate organization in the municipality. I believe that the time is near when every department of our municipal housekeeping must work together in harmony with every other department and that in effect we will have only one department for making our cities the best places possible in which to live.

What has been done in Gary was not done by Mr. WIRT. Please don't forget that. It is not new. We have simply appropriated all the old things that we thought were good in New York City and everywhere else, and the city authorities, the school authori-

ties, the church authorities and social workers and all agencies in the community have worked together as one department to get the thing done. And when I try to show you in as brief a time as possible what we have done, please don't misunderstand me. We have not solved all the problems of making the cities fit places for the rearing of children—fit places for them to live in after they have been successfully reared. I know you are more interested in learning exactly what somebody else has been able to do rather than what he would probably like to do. Gary is a public school system of the State of Indiana. It has only the corporate powers conferred upon any school corporation by statute. It can do only the things that the statute authorizes it to do. We have not been able to do many things we would like to have done, but we are pleased to know that when you get at it and attempt to get the thing done, the statutory limitations, and many of the great difficulties we imagine in the way disappear and the problem is relatively a simple one.

I believe that the child must come to the school teacher; the child must go into industry, into the profession, and into business, intelligent, reliable, industrious, and he must be physically strong and reasonably healthy. I do not believe that any teacher can teach successfully reading, writing and arithmetic until the child has these four attributes; and in the average city the biggest job for the public school is to get the child into a condition to be taught. The whole problem of rearing children successfully in our cities hinges upon these two things: First, providing for a sufficient quantity of wholesome self-activity, and second, occupying all the child's time. I believe that we must do better than keep children busy two and one-half hours a day with the public school system. The average system has only 900 hours a year; what are the children doing the rest of the time? They are not in their homes helping their fathers and mothers. Are they in the churches, recreation parks, etc.? I have not found it so. Never in any city have I found more than one child in four going to Sunday school regularly. What does that mean? It means sixty minutes a week in Sunday school and for seven days a week it is barely two minutes a day. In fact I do not know of any city in this country where the child welfare agencies outside of the school including churches, public libraries. Young Men's Christian Association, Boy Scouts and Camp Fire Girls—all child welfare agencies, are occupying the time of the children on the average for ten minutes a day. The child on the average in the city is on the street five hours a day and the street is a most efficient school for educating him in the wrong direction.

Today we must institutionalize the function of government, we must institutionalize the church activities and educational facilities. The average family in the average city has thrown upon this public institution for the educational work of the family every year more and more responsibility. And when it comes to the problem of

occupying the time of the children for eight hours a day it is not at first as easy as it might seem.

In the beginning you have your teachers to consider. Can teachers do any more than they do now? I doubt it. Many teachers are going into the hospitals from nervous prostration and the strain of the schoolroom duties; and, I believe, that the strain that will send a teacher to a hospital with nervous prostration is a bad thing for the children in the school.

All of our children are not anxious to go to school longer hours. I was asked a few weeks ago to deliver a lecture at Trenton. Before my coming they published some things about the Gary schools. A group of boys got together and held an indignation meeting and drew up a set of resolutions that read something like this: "We don't take any stock in the Gary schools; we don't believe in going to school eight hours a day, six days a week; going to school is like doing time."

Last fall a little boy stopped me on the street in Gary and asked if I were Mr. WIRT. He then said: "I am a new boy in town and expect to start school next Monday." I told him that I was glad to learn that he would enter school so promptly and hoped that he would like the school. "Oh, I will like your schools fine," he replied. "What do you know about the Gary schools?" "I read about them in the paper." "What is there about the Gary schools that you hope to like fine." He looked in my face and smiled and said: "As far as I can make it out a fellow can take a vacation whenever he wants to and I think I will like that fine."

Now I believe that the first business of the school is to get the child to want to learn the things that the school has to teach. We cannot send children to trade schools—we cannot send them into industry, into professions or anywhere, unless the child has made himself ready, and no industry, no profession or no school can take a child that is not industrious, not reliable and not intelligent and that is not physically strong and make the man or woman that he or she ought to be. To develop these four fundamental characteristics is the first job of the public school. I wish to show you briefly a type of building that we think in Gary does that thing. Here is a school with approximately two thousand children in attendance, representing thirty-two nationalities. Last fall four hundred of these children could not speak a word of English. We have a second Ellis Island in Gary. Here is a school site with a building in the centre, public square in front of the building, gardens on either side and a playground in the rear, containing a quarter of a mile running track, baseball diamond, outdoor gymnasiums, basketball and tennis courts for boys and girls.

Next to the playground is a swimming pool for boys and men, with accommodations for one thousand adult men in addition to the school boys. There is a swimming pool for women and girls with locker accommodations for one thousand women in addition to the school girls. In the building is a branch of the public li-

brary, all sorts of industrial shops for boys and girls, a nursery for babies, nature study conservatories for the care of plants and activities that supplement the life of the child in the schools. On the first floor above the boys' swimming pool is a gymnasium 51 by 80 feet. Over the girls' swimming pool another gymnasium of the same size, and between the two gymnasiums is the auditorium stage 55 feet wide and 50 feet deep and 45 feet high with a seating capacity in the auditorium of a thousand. These auditoriums are planned as municipal theatres and in this particular building last winter this auditorium was filled with children from 2.30 to 3.30 on Sunday afternoons and with adults from 3.30 to 5.30. The remainder of the building is given over to the laboratories of a high school, music studios, special classes for foreign languages and history and literature and the ordinary academic studies of the school. In the building there is accommodated the children from the kindergarten, the nursery, the elementary grades, grammar grades, high school and two years of college work.

I believe that such a plant when children can come into the building as babies and remain through the kindergarten in the first, second and third grades and see about them on every hand older boys shoeing horses in the blacksmith shop, the older boys doing cabinet, electrical or plumbing work or whatever it may be, that as they grow older and come into the higher grades they have formed a great many ideas of what they will do in life—whether they want to be a lawyer, doctor, industrial chemist or whatever it may be. And if they are permitted to grow up in an atmosphere of that type and go into laboratories, studios and workshops and help the older children in their work, the time will come when the boy and the girl will know what he or she is best fitted for and will know the thing he or she wants to do.

I believe it is possible to disappoint these children because they do not have the things that the school can teach and that is the only thing that will make them want to know the things the school has to teach. We often hear an adult say if I only had my school days over again I would improve them better than I did. Now when we want to educate ourselves we cannot have the opportunity. Can we not do something that will prevent that tragedy in the lives of our boys and girls? I think we can. I think the thing that makes the adult regret his lost educational opportunities is the fact that he is disappointed every day in not being able to do the things that he otherwise might do if he had properly trained his hand and his brain when he had the opportunity. We can disappoint children because they do not have the things the school can teach, then they will want what we are able to give them. The playground and the workshops in connection with the school can create within the child the need for the things that the school can teach.

But how are you going to finance a program that provides for every child in the city practically the opportunities of a tech-

nical high school? I do not know how you are going to finance a program to take care of children for eight hours a day, six days a week and forty-eight weeks in the year when we can scarcely finance our present budget for taking care of them five hours a day for 200 days in the year. I do not think that communities can afford things any more than individuals. There is a limit to the amount of money we can appropriate for public educational purposes just as there is a limit in any family to the amount of money they can appropriate for any purpose. When we take care of children for eight hours a day, however, we find it can be done more cheaply than caring for them only 2½ hours a day. The reason it is costing so much now for taking care of the children 2½ hours a day is because your facilities are in use only 2½ hours a day. When you use these facilities for eight hours a day you can occupy the time of your children and you will need only about half of your present plant for traditional school purposes. Also there is no reason why the schools should do it all.

We do not wish to take children from the home, or from the church, or industry, or business. We wish to have every factor in the community working together providing a sufficient quantity of wholesome activities for the children and keeping them out of the streets. Here is a program that shows the whole plan in operation for eight hours a day.

(Here a description of the plan of school sessions in Gary was given.)

Sometimes I am asked whether two teachers in a room do not confuse the work. In my judgment that is one of the best features of the plan. There is no one thing I know more difficult to do than to give teachers initiative and responsibility. When you place your strong and weak teacher on the same level you cannot give more initiative and responsibility to these strong teachers than you can to the weak. We try to select the most experienced and the strong teacher as the head teacher and assign the weaker teacher as an assistant. The head teacher is paid an extra salary. The inexperienced teacher is required to visit the strong teacher as frequently as desired. He may visit one hour every day. The head teacher is required to observe the work of the weak teacher. The weak teacher can consult the head teacher and the school authorities can give to this head teacher almost unlimited responsibility because he can use initiative and responsibility safely.

I believe that one of the most difficult things in a school system is to get supervision and at the same time preserve initiative on the part of the workers. School principals as a general rule are not successful as supervisors; they look after the details of administration. There is no reason why you should not have two principals in a building accommodating two duplicate schools.

Select one who has a taste for school management and let him manage the building for both schools. The second principal can supervise the instruction for both schools. I believe then that you will be able to place a great amount of responsibility and initiative in each school plant, which is absolutely necessary if we are going to get an organization that will make the school an institution for meeting the needs of our children.

A plant of this type with two principals and two corps of teachers occupying the same building means that our first investment in a school plant is only half what it would otherwise be.

You have invested in New York City \$140,000,000 in your sites and buildings. In my judgment you can take care of the same number of children that you are now providing for with two-thirds of your present equipment and you need many things more than new schools. Gary has no more space per child than the average city has for playground use. Our capita cost for the education of the children in Gary is \$40, including instruction and operation and maintenance, with an average salary of \$1,100 for teachers. The general wage schedule is the same as in Chicago, which is higher than in New York City.

I find in New York City that you have \$140,000,000 invested in your sites, equipment and buildings. You have \$31,000,000 invested in sites, that is, practically \$3 out of \$14 has gone into the school grounds. Now land values are higher in New York than any other place in the country. I would say offhand that one of the most serious problems in your social welfare work in New York is the land problem. Yet you have invested here with your tremendous resources and with the tremendous cost of your land only \$3 out of \$14; while Gary, built in a woods during the past eight years, has invested in its land \$4 out of \$14 of its total cost of school plant and school equipment.

I believe that New York City can well afford to put a greater amount of its school plant investment in school ground. You need not carry fire insurance on it. You need not spend as much for janitorial service, operation and maintenance as buildings and equipment require. When a building takes care of twice the number of children, you have only half the janitorial cost. The rooms get swept once every day and the janitors will take care of the rooms with two different sets of children using them just as easily as with one set using them. You have only half the fuel and maintenance cost. You are not through with the expense of buildings when they are paid for. They must be kept in repair, heated and operated. If there is anything we need to do for public school betterment, it is to stop wasting our money.

We need also to get other people to help take care of our children. The schools everywhere are like the old woman who lived in a shoe and had so many children she did not know what to do. We are overwhelmed with children, thousands upon thousands, in part-time schools.

I do not know any reason why a church should not give religious instruction to children from 8.30 to 10.30 in the morning. The children could go for religious instruction every day in the week if the church provides it for them. The children who are dismissed at 10.30 might go to their respective churches for religious instruction and then to their lunches. Another group might go for religious instruction and report for school work at 2.30 in the afternoon. The group excused at 2.30 could go from school and remain as long as the church wished to keep them.

Near one of the Gary schools there is a public library. One teacher with her forty children are in the children's reading room every hour of the day. Every child in the school spends sixty minutes in the public library every fourth day. When the children go regularly with their teachers for sixty minutes every fourth day they develop a library habit. There is no reason why the Young Men's Christian Association should not be running every hour of the day and every day of the week. The more activities provided for children outside the school, the less need be provided in the schools. In New York City there are public bath houses, gymnasiums and public libraries adjacent to schools. They should help to solve your school problem and they should help keep your children busy eight hours a day.

Why should we teach a child to cook, if her mother will do it? One of the troubles with our modern efforts with social welfare work in our cities is the fact that the public school system with its compulsory education law takes the child just early enough in the morning to prevent anyone else doing anything for it, and holds the child just late enough in the afternoon to prevent anyone else doing anything for it. Now I believe the public school ought to get out of the way of these other child welfare agencies. If the parents of children would like them to have religious instruction, why not let them go to the church for a part of the day? If the mothers would like to have their daughters help with the work, why not let them do so? If the boys can help with any activities outside of school, why not let them do so? A school program that is elastic enough for the school to serve as a clearing house for the child's activities will go a great way towards getting their cooperation.

I wish to mention just one other phase and I quit. How are you to train children to work without any work to do? I think it is very fine to teach the love of work to a child, but how are you going to do it? Gary has been only an experiment, but it was a fortunate place for an experiment, a suburb of Chicago—a new city—and with the large corporate interests there it has had a good field. Why not make it a practice to call the various men in the industries and their superintendents together and ask each man present what he finds to be the principal difficulty with the men in his employ and the men that he is employing and offer suggestions as to what the school might do to help solve the

problems of these employees and prospective employees. I have yet to find out of over a thousand men, foremen and assistant superintendents who have stated their problems, more than a very few who asked us to put in a machine and to teach the boys how to run the factory machine. Invariably these men say if you will send us boys and girls out of your schools who are intelligent, who are reliable, who are industrious and are strong physically, we will try to do our part to teach them the particular work we want them to do. The trouble with your school is that these children cannot add one-half and one-fourth; they cannot spell, write and read. That is easy to understand because the industries are recruited from the children who fail in our schools, the children who drop out in the third, fourth and fifth grades. They are not able to start in where the employer would like to start them and have them grow up in the business. They say that you are sending us boys that do not have the foundation for development. If you will simply do your part in building the foundation on which we can construct, we will try to do our part. This whole problem of industrial education will be solved only through the cooperation of the industries and the school.

The worst place in the world to make the child industrious, intelligent and reliable and strong physically is the mechanical school-house, with the seats and other devices perfected for keeping children rigid and quiet. The average boy is a bundle of twist, wiggle and squirm and that tendency to twist, wiggle and squirm is the starting point in his education, and if you are going to make a worker out of him when he is a man you must give him a chance to play when he is a boy.

Fortunately the school is like a large family. There was a time a couple of generations ago when there was so much work to do in the home that everybody had to help do it, the children, the father and mother. In the school there is so much work to do, why not let everybody help do it? Why not let the boys do your plumbing, help with the electrical work, cabinet work, painting, your machine shop work and metal work? Why not let them help do the work that must be done?

I do not know of any reason why the Board of Education cannot take charge of its own repair work and elementary construction work, and by putting a plumber in the school, a cabinet worker and a painter, etc., and letting them do their work with the children, provide a sufficient quantity of wholesome industrial education activities at practically no expense.

If you will take the money that you are now spending for the material upkeep of your plants and distribute that money through a number of your schools, you will not only keep your school buildings in better repair than now but you will bring to the children of those schools industrial opportunities that are worth while. Why should the School Board pay the child for doing the work? The School Board does not use the fixtures, but the child does.

The child thinks he is working for himself. I believe here is the opportunity to secure the activities necessary for the development of the fundamental principle of industrial education in our school system. I believe that if the boy is going to have a love for the work, if the boy is going to work effectively when he gets to be a man, there must be real work for him to do as a boy and there must be a real need for the boy doing the work.

The average mother will not bother as a rule with her little girl who wishes to help with the work of the home because she is too much trouble. The mother would rather do the work herself. In a few years when the mother wishes to have the child help in this home work, she will not do so because she is not qualified to do the work. Now if the mother had had the patience to let the child do the work when younger and grow up in the habit of doing work I do not think the child would be conscious of doing anything out of the ordinary.

I believe in a school you must start at the age of ten to permit boys to work at the ordinary activities. I believe that five years' play in the sand pile is enough for any child, but you can transfer him then to another sand pile. Here the sand pile is on the floor and he takes a pattern and he makes something that can be used in the playground or machine shop. Now the child has been transformed from the player to the worker and he will take the same delight and pleasure in his work in the foundry that he formerly did in his play in the sand pile.

Last fall a little boy heard some older boys talking about the vacation that was coming. He talked to his father and mother a great deal about it. When Thanksgiving did come, after breakfast he put on his hat and coat and started out. The father said, "Where are you going?" "I am going to school." "Well, this is vacation." "I know this is vacation. I have been waiting for it: I am going to have a bushel of fun." "But the schools are closed." "Why are the schools closed at vacation? How can a fellow have fun when the schools are shut up?" That is not strange when the closing of the school means the shutting up of the swimming pool and the workshop and everything he finds pleasure in. The father of this boy ten years old bought him a steam engine for a Christmas present and helped him fire it up, for he was as anxious as the boy to see it run. The boy said, "Daddy, that is a first-class lever." "Are there any other kind of levers?" "There are second and third class levers." The boy had been working with older boys in the physical laboratory as a helper and they had been studying levers. The boy brought the engine to school and I called in three boys seventeen years of age who had been in Gary a little over a year and during the fall had been studying mechanics. I gave them the engine and asked them if there was a lever there and after looking it over they said, "No, there is no lever there."

If you permit your boys and girls to run the streets for five hours a day until they are fourteen, fifteen, sixteen and seventeen years of age and then try to get them in any kind of school to develop a scientific attitude of mind, you will have a most difficult problem. But if you will take the child who is a natural born scientist and permit him to exercise from day to day that scientific impulse in his nature, when he gets to be seventeen years of age he will recognize a lever if it is on a machine.

I believe the whole problem of modern industrial education is only a part of a larger problem of making the city a fit place for bringing up children, but for fear I may be misunderstood I wish to place myself on record as in favor of regular trade schools. I believe that a state should have an institution like the University of Wisconsin that enables every farmer in the state to send to the Agricultural Department and get information that will help him with his growing crops.

I believe that every workman in the city, every industry should be able to send to the State University and get help in their problem. I believe that a university should be universal in its application and in a city like New York you should do for yourselves what the University of Wisconsin is doing for the State of Wisconsin.

What would you do with half of your school buildings if you doubled up the other half? The entire academic work of New York City schools should be accommodated in two-thirds of your present plants and, of course, you would pick out for your use your most modern and best located plants. What would you do with the others? Probably a great many of the others would be old buildings. What I would like to see is a part of these vacated plants used for special industrial education schools. The tailors, carpenters, plumbers and printers, all should be able to secure the best information that the world affords concerning their work. The young man should go to a university for a course in plumbing as well as a course in Greek or Latin. I do not see any reason why the University of New York should not do for your city what the University of Wisconsin is doing for the State of Wisconsin. I believe that when you stop wasting your money you will have ample funds for this extension work of your University. I would like to see the day when the men charged with the industrial work of the City will have their offices for getting together in the buildings of the City devoted to industrial education.

Why would that not be possible for every trade and industry? If you are going to get the cooperation between the industry and schools I think you must have a place to get together. I do not see any reason why in this extension work of the University, for instance, the plumbing union and the master plumbers should not have offices in the plumbing school. The whole problem of making the city a fit place for the children is one of cooperation. We are spending enough money and energy if we only would work to-

gether, and the City of New York has relatively more strong men and women than any other city in the country. As I take it your problem is purely one of not being able to work together and that is the problem everywhere. I think you have that problem to a greater degree than the average city because you have so many people who are capable of bossing the job.









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